3'55

NATIONAL FISHERMAN

DECEMBER 1954

Formerly **ATLANTIC FISHERMAN**

Longer, Stronger Life for Columbian Manila Rope!

◀ Microphoto of *treated* Manila fibre after 2-week incubation with green mold spores. *Only original spores applied for test are present.*

▲ Microphoto of *untreated* Manila fibre after same 2-week test shows jungle of spores whose "roots" feed on fibre, leaving it rotted, useless.

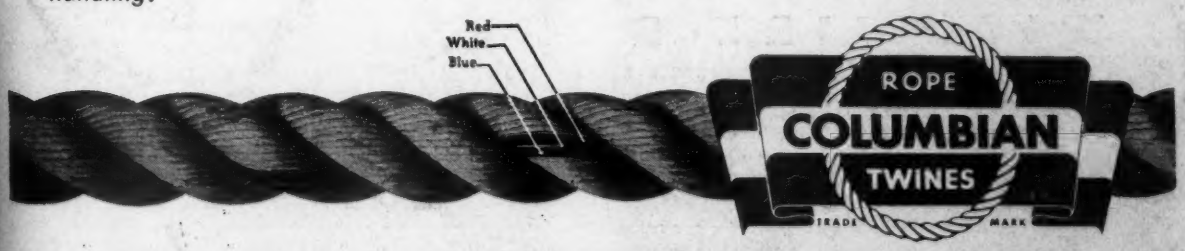
REVOLUTIONARY DISCOVERY STOPS ROPE-ROT COLD!

Now all mildew, mold and rot bacteria seeking to feed on Columbian Manila Rope are *stopped in their tracks!*

Years of exhaustive trials in Columbian laboratories — and in extreme exposures to all types of climate and usage — have established the lasting protective potency of Columbian Anti-Rot Treatment.

Every foot of Columbian Manila Rope is adequately protected against decay for YOUR climate. YOUR uses, YOUR methods of handling!

COLUMBIAN ROPE COMPANY
Auburn "*The Cordage City*", N. Y.



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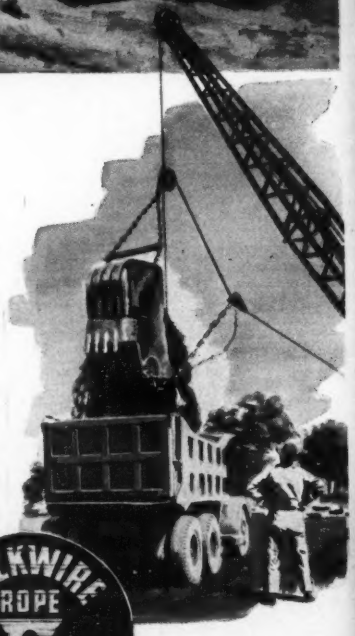
the dirt flies faster—now with MUSCLES OF STEEL

Straining laborers plying pick and shovel are a bygone memory because of today's excavating and road-building equipment. Modern power shovels and draglines use *muscles of steel*—rugged wire rope—to keep the dirt flying fast.

Helping to clear the way for needed highways is another of the important ways in which Wickwire Rope contributes *muscle* to America's might.

You'll find Wickwire Rope, too, in the mines and the quarries . . . in the oil fields and logging camps . . . with the fishing fleets . . . and in numerous materials handling operations. Whatever the job may be, the extra care and quality fabrication that goes into Wickwire Rope proves itself in longer life, more economical service and utmost reliability.



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PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
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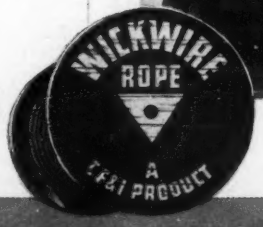

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THE COLORADO FUEL AND IRON CORPORATION—Abilene (Tex.) • Denver • Houston • Odessa (Tex.) • Phoenix • Salt Lake City • Tulsa
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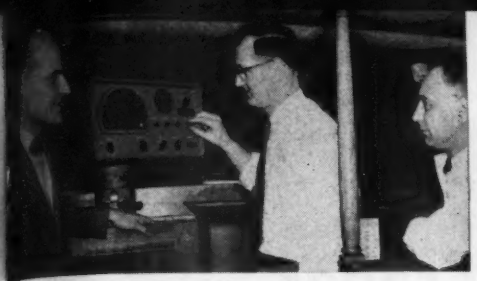


SETTING SEA SCANAR CONTROLS. *(Left to right) Roy Malm, Chief Engineer; John Dudley, Research Engineer, and Lawrence Ross, Skipper—all of the Marine Equipment Division, Minneapolis-Honeywell Regulator Company, Seattle, Washington.*

Minneapolis-Honeywell installs CHRYSLER MARINE V IMPERIAL SPECIAL to speed development of new Sea Scanar

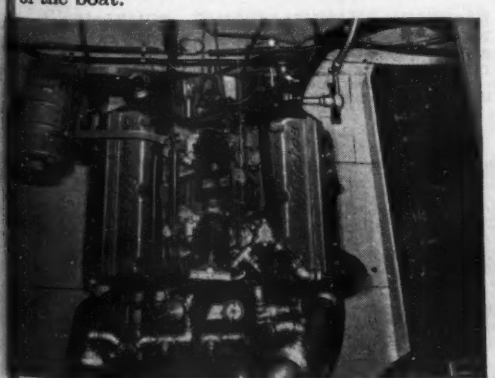
MISS HONEYWELL, *40-foot cruiser designed by Edwin Monk and built by Chambers and Franck Boat Company, Seattle, Washington, for the Minneapolis-Honeywell Regulator Company. Power is a Chrysler Marine V Imperial Special Engine (below), installed on the same engine bed that previously held a 160-horsepower in-line engine.*

Miss Honeywell is a research boat owned by Minneapolis-Honeywell Regulator Company. It is used exclusively in the development and demonstration of Minneapolis-Honeywell's new Sea Scanar, an underwater navigation aid which "looks" 1600 feet ahead of boat.

Previously *Miss Honeywell* was powered with a 160-h.p. engine which turned a 22″ x 20″ propeller, allowing a cruising speed of 9 knots and a top speed of 11 knots. Research and test work required greater power and more speed *without* extra weight. Accordingly, a 200-h.p. Chrysler Marine V Imperial Special was selected to replace the old engine.

Now, several months later, Lawrence Ross, engineer in charge of the boat, reports an average cruising speed of 11 knots and a top speed of 13.5 knots, with the engine turning a 24″ x 19″ propeller.

Of *Miss Honeywell's* performance with her new Chrysler Marine V Imperial Special Engine, Skipper Ross writes, "There's a definite increase in speed—in fact, we now *cruise* at 11 knots—formerly our top speed. When seas are rough, our increased speed raises the hull high in the water—we cruise drier, smoother and faster. Being able to operate with a 2-inch-larger-diameter propeller gives us better control of the boat."



For greater pleasure or profit . . . the Chrysler Marine V Imperial Special at 200 h.p. offers more usable horsepower per pound (1103 lbs.—straight drive), than any marine engine built. It's a quality-built engine featuring among other things . . .

- **Hemispherical-Design Combustion Chamber**
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- **Short-Stroke, Low-Friction Construction**
- **Water-Heated Intake Manifold**
- **Completely Water-Jacketed Exhaust Manifolds**

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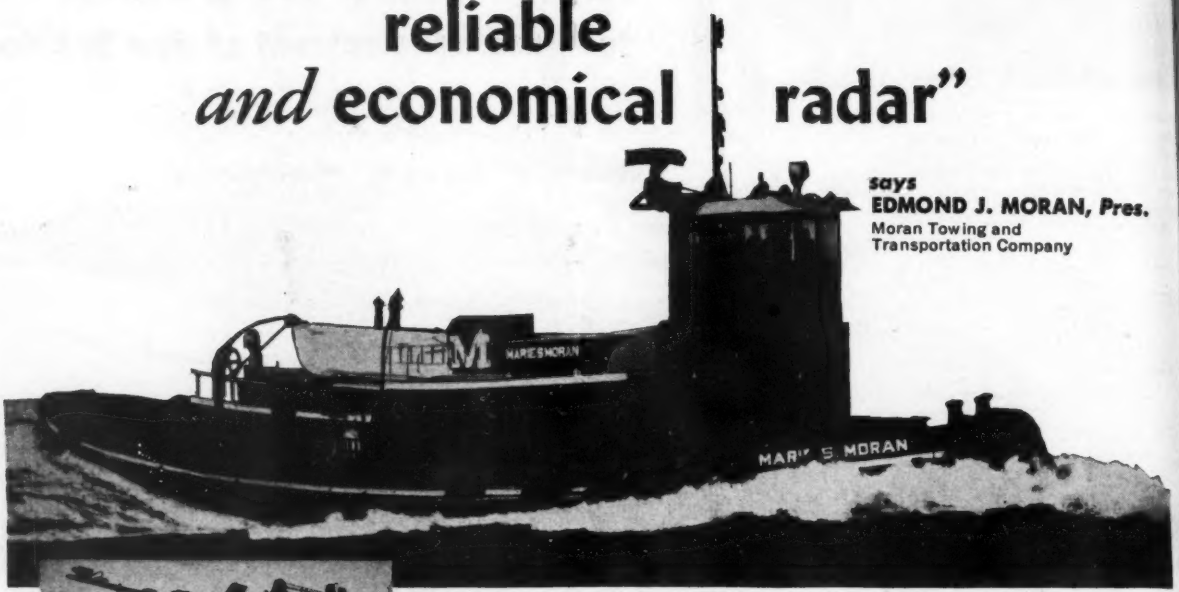
America's No. 1 Marine Engine

MARINE ENGINE DIVISION • CHRYSLER CORPORATION

"a most effective reliable and economical radar"

says
EDMOND J. MORAN, Pres.
Moran Towing and
Transportation Company



Aboard the Marie S. Moran, time means money. She ducks her mast and wheelhouse to clear slow-opening bridges . . . relies on her Raytheon Model 1500 Radar to operate safely and profitably when fog, darkness or foul weather stop or slow down other vessels.

In the RAYTHEON *Mariners Pathfinder* RADAR Model 1500 — first radar designed expressly for workboats and smaller vessels — you get more than compact, low cost, easy to install equipment.

Here is a radar that is new in design and construction . . . entirely new in its recognition of small craft space and cost limitations, installation problems and performance requirements.

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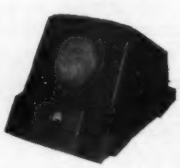
"READY FOR SEA" *a full-color 16 mm sound movie, graphically demonstrates why you can count on Raytheon Radar Model 1500 for superior reliability. For free showing to your group, contact the nearest Raytheon office.*

COMPACT 2-UNIT DESIGN SAVES SPACE . . . SIMPLIFIES INSTALLATION

ANTENNA-TRANSMITTER combines in a single, easy-to-install unit, eliminating costly, power wasting, long waveguide runs. Transmitter subunit can be taken below for foul weather servicing.



INDICATOR-RECEIVER mounts on bulkhead, shelf or overhead; features Simplified Controls; 10" Scope; Reflection Plotter; Ships Heading Flasher; Parallel Line Cursor; Tune-Test Meter; 1, 2, 4, 8 and 16 Mile Ranges.

NEW BULLETIN GIVES ALL THE FACTS

Tells why Raytheon Model 1500 Radar with all its advanced features is still low in first cost, low in operating cost, easier to install, easier to operate. Write for it. Address Dept. 6130AF.

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RAYTHEON

Mariners Pathfinder®

RADAR Model 1500

December 1954 Vol. 35 No. 11

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NATIONAL FISHERMAN

Formerly ATLANTIC FISHERMAN

Serving the Commercial Fishing Industry of the United States

Voluntary Quality Standards Desirable

The need for quality standards for fishery products was stressed by several speakers at last month's meeting of the Gulf and Caribbean Fisheries Institute in Havana. Industry men, Government representatives and association officials were agreed that the adoption of voluntary quality controls was one of the most important steps that the fishing industry could take in order to improve its competitive position in the food business.

In addressing the session, Harry K. Schauffler, executive director of the National Wholesale Frozen Food Distributors Association, stated: "An important objective of your fact-finding conference here obviously is to determine how ocean products—which pioneered the frozen food industry—can cease being laggards and step out ahead again in the freezer cabinets of today. Certainly the modern housewife welcomes the new convenience which you offer just as she has such kitchen shortcuts as no longer needing to shell peas, squeeze oranges or prepare poultry pies, etc. But too often perhaps she is dubious about seafood quality and whether papa and the kids are satisfied to have her repeat such frozen time-savers.

"You face a grave responsibility as your products move more and more through frozen food cabinets. Where formerly the housewife inspected and even smelled the raw product herself, or at worst placed her trust in her friendly grocer, now she and he see only a package. You, the seafood processor, have assumed her responsibility for the quality of the raw material and its preservation."

In outlining the activities of the National Fisheries Institute in promoting quality standards, Mal Xavier said at the Cuban session: "The one ultimate aim of N.F.I.'s Quality Program is the placing before the general public of wholesome and nutritious fish and shellfish products of the highest quality possible. No matter how much money is spent to promote a commodity or advertise a product, if that commodity or product does not meet a high quality standard, it means that time, money and much effort have been wasted.

"Like any other industry, we in fisheries must progress in order to survive. New production methods and techniques and some new products have been developed, but we must also develop standards of quality and standards of sanitation.

"Among other things, standards will provide a practical means of determining loan and sale values on fish through the medium of proper inspection and the issuance of appropriate certificates, which will bind both seller and buyer to accept the verdict of the issuing party, whether it be a Government Agency or a private laboratory. In affording security on selling and buying commitments, standards will bring better relations and understanding all along the line from the fisherman on down to the retailer."

The promulgation of standards of quality for all varieties of fish and shellfish is essential to the future development of the fishing industry, and the adoption of such standards on a voluntary, industry sponsored basis would be highly desirable. Everyone in the industry, from the fisherman to the retailer, has a stake in quality, and should give full support to any practical measures that will insure better control of quality.

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FOR YOUR DEPTH RECORDER

Inexpensive
Magnifier
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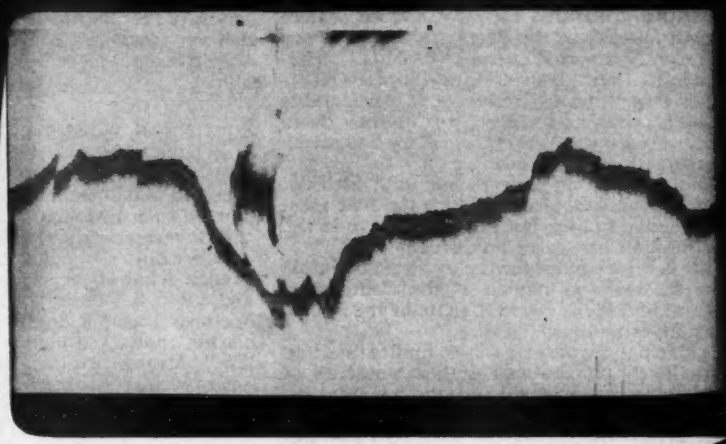

This is an actual size reproduction of the FISH MAGNIFIER chart used in conjunction with a Bendix DR-7A Depth Recorder. The magnified chart is a five fathom section of the ocean and bottom—the dial permits you to select any depth desired. Note the sharp detail, sharper even than the DR-7A chart because not only has the scale been magnified, both vertically and horizontally, but also the sounding range has been increased.

Bendix has developed an inexpensive magnifier attachment for your Bendix Depth Recorder. Use the recorder for the overall picture but when a closer look of any section is desired, simply turn the selector switch to Magnifier position and dial the required depth. Instantly, in natural, easy to read, chart form, is an enlarged section for your closer study. You can pay up to ten times more for complicated magnifying equipment, but none will compare with the results obtained with the new Bendix FISH MAGNIFIER. It gives you the biggest image—measured in inches—that is available today by any method.

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FISHERY PROGRESS

Economic • Legislative • Technical

New tuna fishing methods for use in deep waters are needed, Garth Murphy of the Pacific Oceanic Fishery Investigations recently reported at the Fifth Tuna Conference held in LaJolla, Calif. He stated that in the Christmas Island region large tuna are prevalent at considerable depth, but do not appear in dense schools as they do in the eastern Pacific. As a result they cannot be caught by conventional eastern Pacific methods.

Don McKernan reported on experiments with artificial bait. He said it had been determined that the bait must have an odor attractive to tuna but must also move in the water. No feasible bait has yet been developed.

A committee to compare notes for the eventual scientific crop control of the sea was named at the Conference. Chairman of the committee is Oscar E. Sette of the Pacific Oceanic Fishery Investigations.

Sette said a principal purpose of the committee's study would be to predict the fluctuations in the abundance of tuna and to determine factors that cause the apparent increases and decreases in tuna population. It will be five years, however, before the committee will have any advice to offer.

Disaster loans are being applied for by a few oyster companies in Middle Atlantic area which suffered damages in Hurricane Hazel. Loans up to $10,000 are available from Small Business Administration at 3%, repayable over ten-year period. Areas where such loans are obtainable are generally the coastal sections of South Carolina, North Carolina, Maryland and N. J.

New fisheries exploration and gear research project is to be carried out in North Atlantic by Fish & Wildlife Service. Chief of the work is Robert C. Wilson, who reported for duty at East Boston, Mass. headquarters of Service on December 6. The new project is one of first to be activated using funds made available by Saltonstall-Kennedy legislation.

Wilson will supervise operation of 140' research vessel *Delaware* which has completed technological study on freezing fish at sea. Vessel has been transferred to Section of Exploratory Fishing and Gear Development, and comprehensive program of exploration and gear research is being worked out for New England area. This will include systematic exploration of potential fishing grounds in waters beyond depths presently fished by fleet, midwater trawling experiments and shrimp exploration, among other objectives. *Delaware* will be operated on year-round basis, and results of program will be made immediately available to fishing industry.

Wilson is graduate of University of Washington School of Fisheries, and has spent considerable time in and around commercial fisheries of Pacific Coast and Alaska. In fisheries research his work has included 7½ years with California Department of Fish and Game during which time he was in charge of one of State's large sea-going research vessels.

Fishermen are not employees of fish company but are independent contractors, according to ruling of National Labor Relations Board regarding status of fishermen in Cook Inlet, Chignik, Port Moller and Westward districts of Alaska. Fishermen in question fish with boats and gear furnished by cannery operators.

NLRB said it did not agree that company fishermen in areas named are employees of canneries. Board said fishermen in the four districts operate in same manner as independent fishermen.

Salmon research in deep-sea areas was approved at first annual meeting of International North Pacific Fisheries Commission in Vancouver, B. C. recently. Investigation will be joint effort by fisheries scientific staffs of three parties to convention—Canada, Japan and United States—and will involve an analysis of records of commercial catches and use of research vessels for tagging fish and obtaining biological and oceanographic data. King crabs in Eastern Bering Sea also will be studied.

The salmon investigation was spurred by Japanese catches of large numbers of salmon far off Aleutian Islands. U. S. and Canadian fishermen are concerned that fish may be immature North American salmon which are being taken before they can return to their spawning rivers.

Territorial waters claims by South American countries have been protested by Norway. A note objecting in strong terms against the declaration of Peru, Chile, and Ecuador that their territorial waters extend for 200 miles beyond their coastlines, has been delivered by Norway to the Governments concerned.

As a result of the South American claims, a Norwegian-French whaling expedition already has been cancelled, and another fleet flying the Panamanian flag is unable to operate. Panama has protested to Peru and Chile, declaring that their claims are "contrary to international law." Meanwhile, the three South American countries have reached agreement on measures to protect their territories. Poachers will be liable to have their vessels and catches seized.

Mother ship with fleet of catchers is not best answer to problem of getting fish to market from distant fishing grounds in reasonably fresh and salable condition, according to G. C. Eddie of Torry Research Station, Aberdeen, Scotland. Speaking on recent developments in freezing fish, he said: "Mother ships and catcher fleets cost a huge sum in the first place, and also there are the difficulties of transferring catches in open sea. Furthermore, distances to be traveled by the catchers in search of fish would be wide and could very well nullify the point of having a parent ship.

"Each fishery has its own problems and there is no generally acceptable solution. It is better to experiment with independent freezing trawlers, and in this connection two very different projects are now underway in the United Kingdom.

"The first is a trawler, much larger and completely different in design from the standard vessel, which will produce in the main, consumer packs of fillets. The second, in which the Torry research station is engaged, is a standard trawler equipped to freeze the early part of its catch as whole fish".

New fleet of British trawlers will be built up under plan initiated by Aberdeen, Scotland fish merchants. Looking to their own future, merchants approved levy on all fish landed on voluntary basis, cash to go to establishment of fleet of Diesel trawlers. These will be owned by merchants who will thus insure continuity of activity and their own continued livelihood.

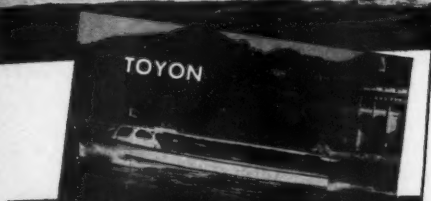
Background of action taken was that an aging fleet promised a situation where merchants would receive insufficient fish to remain in business. Trawling firms in the area had been reluctant to take initiative in replacing fleet.

Scottish factory trawler *Fairtry* has made another good trip off Grand Banks. So successful was the second trip that the owners may build other vessels of same type sooner than expected.

Fairtry caught and processed 540 tons of fish off Greenland and Newfoundland in only 57 fishing days. This included 240 tons of whole haddock 175 tons of haddock fillets, 100 tons of cod fillets, and small amounts of halibut and other varieties. On maiden voyage the catch was 460 tons in 65 days' fishing.

With regard to quality of fish landed, it was said that excellent reports have been received from consumers.

Catalina GOES ALL OUT FOR AQUA-CLEAR Feeders



CATALINA ISLAND STEAMSHIP LINE

CATALINA TERMINAL • P.O. BOX 847 • WILMINGTON, CALIFORNIA

Mr. John N. Bergh,
West Coast Representative,
Sudbury Laboratory,
221 Pomona Avenue,
Long Beach 3, California.

July 2, 1954

Dear Mr. Bergh:

In September 1952, we installed two Aqua Clear Feeders on the Glass Bottom sightseeing boat "TOYON", which is powered by two Chrysler Royals, salt water cooled. We had been experiencing the usual trouble of rusting and salting common to all engines so cooled, and were anxious to put a stop to it, if possible.

After six months of continuous operation, we inspected the cooling passages very thoroughly and were happy to find no evidence of rust or salting. As a result of this excellent performance, in March 1953, we installed Aqua Clear Feeders on the Passenger Cruiser "DESCANSO", which is powered by 2 - 630 HP Hall-Scott Invaders and salt water cooled. The following month we installed Feeders on the sightseeing boat "BLANCHE W.", powered by 2 - 671 Gray engines, fresh water cooled, with a heat exchanger on the salt water side, and on the Glass Bottom Boat "PHOENIX", powered by 2 Hudson Invaders, similarly cooled.

Since installing the Feeders, we have not found it necessary to clean out the heads, manifolds, and blocks as was formerly necessary. This has saved us considerable lay up time and expense.

As a result of the excellent performance on these boats, we installed your model 16" G Feeder on the sanitary line of the S. S. "CATALINA". While it has been in operation only two months, we can already see a decided improvement in the operation of the valves and floats along the sanitary line.

Our experience with the Aqua Clear Feeder has thoroughly convinced us of its merit, and very low cost of operation, and we can recommend it for complete protection against rust, corrosion and salting.

Very truly yours,

W. L. Scott

W. L. Scott, Port Engineer

Catalina, California's fabulous island resort, is a mecca for thousands of tourists... carried annually by the Catalina Island Steamship Line. For their comfort and safety as well as efficient operation, Catalina engineers quickly saw the advantages of AQUA-CLEAR Feeders. Mr. Scott's letter tells its own story.

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—without Rust, Corrosion or Salting Down

More than 25,000 enthusiastic users can tell you that Sudbury's AQUA-CLEAR Feeder completely protects sanitary lines, fire lines, air conditioning equipment, refrigeration and ice plants... as well as direct cooling systems for marine engines... from danger of rust and salting down. Increases efficiency, cuts maintenance expense. No moving parts to wear or breakdown.

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Dealers: Write for Special Offer.

West Coast { John Bergh, 221 Pomona Ave., Long Beach, Calif.
{ Bruce Rutherford, 1954 1st Ave. South, Seattle, Wash.

Florida— John Burton, 4520 S.W. 62nd Ave., Miami, Fla.

AQUA-CLEAR Feeders
Double the Life of Marine Engines

Throw Your Heat Exchanger Troubles Overboard

You can actually cool your engine using direct salt water without heat exchangers, expansion tanks and complicated piping... with complete protection from rust, corrosion and salting down.

Made for all size engines. Only $128.75 for Feeder to handle 1½-in. pipeline... maintenance not over $10 a year. Feeder to handle 4-in. pipeline costs only $547, with refill chemicals costing less than $25 per year.

SUDBURY LABORATORY,
Box 805, South Sudbury, Mass.

Send me your latest bulletins on marine engine cooling systems and how the AQUA-CLEAR Feeder gives complete protection from rust, corrosion and salting down. Also information on other Sudbury Quality Products checked at right, **FREE.**

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Address.....

City.....Zone.....

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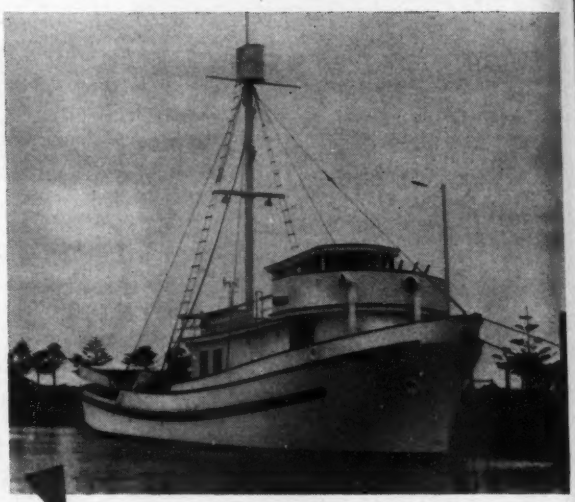
Other Sudbury Products
- ☐ Sky-Vent
- ☐ Port-Vent
- ☐ Vapor-Proof Switch
- ☐ Automatic Engine Alarm
- ☐ Sav-A-Tank Cartridge
- ☐ Automatic Bilge Cleaner
- ☐ Boat Zoap
- ☐ Sail Zoap
- ☐ Liquid Aqua-Clear
- ☐ Gusher Bailing Pump
- ☐ Barfair Sail Preservative
- ☐ Aqua-Shed Waterproofing
- ☐ Aqua-Clear Crystals
- ☐ Crystal Kleener

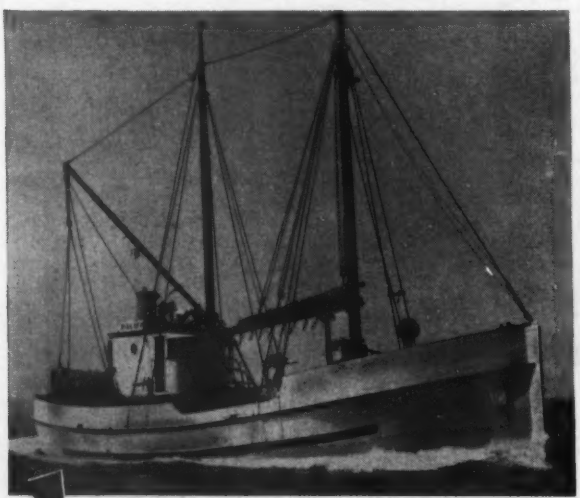
SHING COSTS STAY LOW BECAUSE . . . . . .

they all enjoy economical diesel power!

THIS 103-FOOT DRAGGER depends upon a rugged 400 hp Superior Diesel for long trips and record hauls in the North Atlantic. Even under adverse conditions, Superior Diesels mean reliable, low-cost propulsion, and establish records for long life.



THIS FIRST PURSE SEINER built in Australia is powered by a 240 hp Atlas Diesel. The simple design of Atlas Engines means easy maintenance and lower weight per horsepower—while precision parts and heavy-duty frame insure exceptionally long life.



THIS WEST COAST SCHOONER uses a Lister FR2 to operate its refrigeration compressor and electric generator. Fishermen find that Lister's unique dual combustion chamber insures easy starting and fuel economy, in every type of auxiliary service.

IN THE WIDE RANGE of 4 to 1765 hp there's a Superior, Atlas and Lister Diesel for every marine power application. You can get complete information on these economical engines at the nearest sales and service office listed below.

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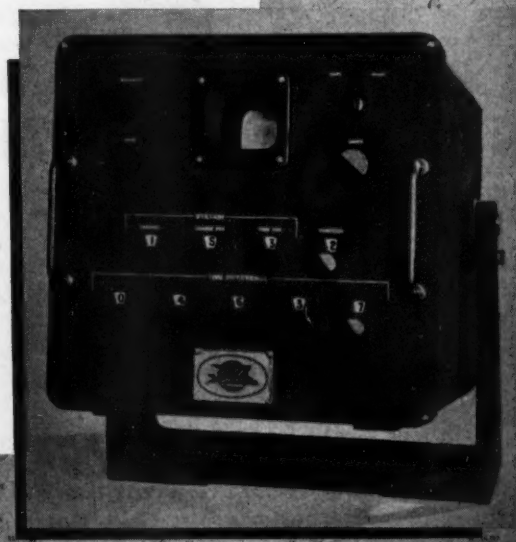

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Fishing Boat Insurance Problem Gets Attention

Gulf and Caribbean Fisheries Institute meeting in Havana also discusses voluntary standards for fishery products

SEVERAL topics of vital importance to the fishing industry, such as the insurance problem, quality standards and results of Government fisheries explorations, were discussed at the seventh annual session of the Gulf and Caribbean Fisheries Institute in Havana, Cuba, November 15-19. Representatives of both industry and Government of the United States, Cuba, Mexico, Barbados, British West Indies, Bermuda, Haiti, The Netherlands, Chile and Denmark attended and participated in the program. Dr. C. P. Idyll of the University of Miami Marine Laboratory, Coral Gables, Fla., is executive secretary of the Institute.

The Industry Session, which gave emphasis to the subject of voluntary standards for fishery products, was presided over by Carlton Crawford of Palacios, Texas. Speakers included A. W. Anderson, chief of the Branch of Commercial Fisheries, U. S. Fish & Wildlife Service, who said that the adoption and use of voluntary Federal standards for fishery products is one of the most important steps the United States fishing industry can take to place itself in a more favorable competitive position with other food products and with imported fishery products. He disclosed that segments of the domestic fishing industry are becoming aware that they no longer can afford to deny themselves the advantages of standards as a merchandising aid, particularly when they have been so widely and so effectively used by competing food products.

"The Fish and Wildlife Service of the Department of the Interior has authority to develop voluntary Federal standards for fishery products. It has scientific personnel, skilled in technological and marketing problems, who are in close touch with the fishing industry. They have carried out research involved in the development of standards for years.

"An allotment of Saltonstall-Kennedy funds has already been made to establish an industry liaison for Federal-industry joint development and application of voluntary Federal standards. And it is expected that a second allotment will be made for expanding this voluntary standards research to obtain basic data required to develop the tests which will make the standards function most effectively.

"After standards have been established and promulgated they can serve their objectives only if there is available to both buyers and sellers an inspection service in all important producing and marketing centers. Although the Fish and Wildlife Service has not had occasion to request the Department of the Interior to consider establishment of such an inspection service, it would appear that legislation would be required to provide it the necessary authority."

Immersion Type Freezing Aboard Shrimpers

Experiments with an immersion type freezing system on shrimp boats, using a solution of sugar and salt, were discussed by W. L. Mingledorff, Jr. of Mingledorff's Inc., Savannah, Ga., at the Technology and Exploratory Fishing Session. He said: "We tried a solution of sugar and salt with which the Fish and Wildlife Service had done some work. It worked beautifully for certain definite mixtures. Some salt was satisfactory and others were not. The same applied to sugar.

"We finally perfected the solution to the extent that we could freeze shrimp at 0° to 5°F. in fifteen minutes or less depending on the amount of agitation of the solution over the shrimp. The most amazing discovery of all was that the shrimp although thoroughly frozen had no tendency to stick together.

"We next experimented with the holding qualities of these shrimp. We found that even when stored they still did not stick together and remained that way during 60 days of storage in a large freezer room when left in an open cardboard master carton. Another startling fact was that there was no measurable or visual signs of dehydration. The shrimp when thawed out after 60 days in open storage looked like they had just come out of the water. We iced some of them and held them seven days and they kept just as well as fresh shrimp.

"We attribute the holding qualities of the shrimp to the fact that the sugar in the solution when mixed with salt and water makes a thin syrup and the sugar and salt in the solution does not recrystallize even in storage. The shrimp have a shiny look during storage indicating that the coating is still there. Just as sugar left in the open

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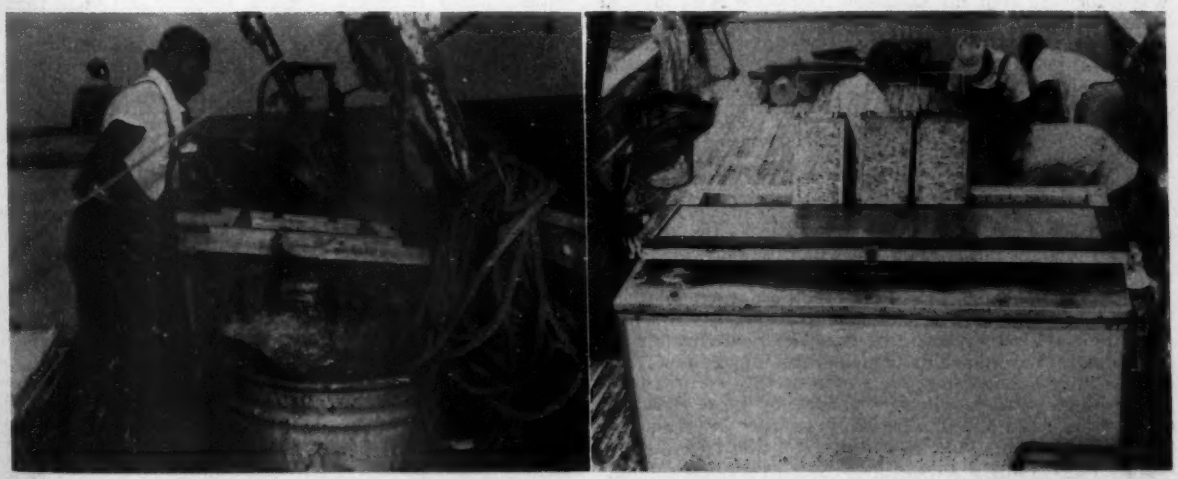

Processing operations on the Tampa, Fla. shrimper "Prince Charming", owned by John Fazio Shrimp Co., and equipped with an immersion type freezing system using a solution of sugar and salt. Left, the shrimp being headed and washed; and right, baskets of shrimp draining after the 15-minute freezing period. The "Prince Charming's" freezing system was developed and installed by Mingledorff's Inc., Savannah, Ga.

Shrimp being weighed in 50-pound lots and dumped into special stainless steel wire baskets preparatory to freezing, on the Tampa, Fla. trawler "Prince Charming", owned by John Fazio Shrimp Co. The vessel has an immersion type freezing system which was developed and installed by Mingledorff's Inc., Savannah, Ga., and uses a sugar and salt solution.

in storage tends to collect moisture, we think the solution on the shrimp chemically upsets the tendency for the shrimp to dehydrate by collecting moisture from the air in the storage room, and holding it on the product.

"We also tried repeated freezing of the same shrimp. Due to the quick freeze experienced the shrimp after freezing five times were still firm and had no tendency to separate from the shell.

"From this knowledge we proceeded to apply the system to a conventional vessel. Henry Ambos of the Trade Winds Corporation cooperated with us and allowed the first installation to be made on his vessel, the *Miss Trade Winds*. As is usually the case, based on experience gained on the *Miss Trade Winds*, we were able to greatly simplify the installation of the next unit which was put on the *Prince Charming*, a vessel owned by John Fazio Shrimp Co. and operated under the supervision of Tommy Fazio in Tampa, Fla."

Grade Standards for Shrimp

"Shrimp Industry Standards of Quality" was the topic discussed by Lawrence W. Strasburger, New Orleans food technologist. He commented that the adoption of grade standards in January, 1954 by the canned shrimp industry was a forward step, but disclosed that there is no method of enforcement save that which is exercised by the buyers. As a consequence, confusion is reported to exist in certain instances on size designations.

"Historically, practically all shrimp produced on the Atlantic seaboard has been shipped to market in the fresh stage, but the picture is changing. More and more of the production is being processed as frozen, or as breaded shrimp. Chemical, bacteriological and organoleptic analyses by an independent laboratory, of market samples made over a period of several years, clearly show that quality control standards should be set up by the breaded shrimp industry, not only on the Atlantic seaboard but in all other areas where shrimp are breaded.

"The Tampa Shrimp Producers Association, Inc., of Tampa, Fla., and The United Shrimp Producers Association, Inc., of Fort Myers, Fla., have been attempting to set up and enforce, against considerable opposition from outside their membership, their own quality control program. Much effort has been expended by those Associations to educate the fishermen in proper methods of catching, handling, and sanitation, to the end that a radical improvement in the quality of shrimp reaching port has been noted by the members.

"In July, at its regular annual meeting in Mexico City, the Shrimp Association of the Americas adopted standards at both the boat and plant levels for the quality control of frozen shrimp. At that time, the Board of Directors requested all members to attempt to institute the requirements of these standards on their own initiative. They also requested the Quality Control Committee to investigate means and methods by which the standards might be implemented, in order that a Quality Seal could be developed and utilized to show that the shrimp so marked had been produced, packed and frozen under the "Standards for Quality Control of the Shrimp Association of the Americas."

Other papers on quality standards were presented by Mal Xavier of the National Fisheries Institute, who gave the trade association viewpoint, and by Lorain Szabo of Jacksonville, Fla., who discussed "Quality Standards for Crab Meat".

Deepwater Shrimp Explorations Planned

Plans for a search for new profitable areas of operation for the Gulf of Mexico shrimp fishing fleet by the research vessel *Oregon* in 1955 place emphasis on exploration in deep water. This was disclosed by Stewart Springer, Chief of Gulf Fisheries Exploration and Gear Research, Pascagoula, Miss. He stated: "In the Gulf of Mexico, shrimp trawl drags by the *Oregon* have been made out to 500 fathoms. One of the surprising results was the comparatively high volume of catches from the bottom in 200 to 300 fathoms.

"*Hymenopenaeus robustus*, (popularly known as red shrimp) is a bottom dwelling shrimp, large enough to be desirable for present markets. Concentrations of the species have been found by the *Oregon* in the 200 to 250 fathom depth range and catches have been reported. This species will be a principle objective in exploratory searches by the *Oregon* in 1955."

Yellowfin Tuna Research Project

Harvey R. Bullis, Jr. of the Fish & Wildlife Service, Pascagoula, Miss., told about recent explorations for yellowfin tuna in the Gulf of Mexico, and outlined the program for 1955. He commented:

"An analysis of long line results to date and estimates of the seasonal occurrence and distribution of yellowfin tuna in the Gulf would be premature. However, the few facts now at hand indicate commercially valuable stocks of large yellowfin tuna widely distributed beyond the edges of the continental shelf. Comparable to those of the central Pacific, these deep-swimming tuna are rarely seen at the surface.

"Test packs of these first catches have been made at four commercial canneries and at the Service's Technological Laboratory at College Park. Reports received to date indicate that these Gulf-caught yellowfin are of better quality in regard to color, texture, and yield than are the yellowfin caught in the principal fishing grounds off the Galapagos and Peru, or those imported from Japan.

"As programmed for 1955, the tuna project has four objectives: 1. To learn if profitable fishing concentrations of yellowfin tuna are present in the Gulf throughout the year and locate the areas of highest catch rate; 2. To determine optimum gear depths; 3. To compare the effectiveness of several potential bait species; 4. To determine the continuity of catches and variation of catch rate between the Gulf of Mexico and the Western Caribbean."

Maintaining Quality During Transportation

"There is no industry more dependent upon the maintenance of quality than the seafood business". This was the statement of Charles B. Bowling, chief of the Freight Rate Service Branch, Agricultural Marketing Service, whose subject was "Maintenance of Quality of Seafood Products During Transportation."

"Of current and utmost importance is the question of containers for the shipping of less-than-carload shipments. The reason is that, effective September 1 of this year, the Railway Express Agency no longer obligates itself to furnish Church containers, despite the protests made to the Interstate Commerce Commission by the United States

(Continued on page 40)

Capt. Celestin Radil at wheel of 72' "Ivana", one of three herring and salmon seiners operated by the Radil family out of Vancouver, B. C. The vessel, shown underway at right, has a Model 45-M6-6 Atlas Imperial Diesel, rated 300 hp. at 750 rpm, which turns 62 x 42 propeller through 2:1 reduction to give her a top speed of 11 knots.

Other boats in the Radil fleet include the "Theresa", Capt. Albert Radil, and the "Walter M.", Capt. John Radil, who is the father of Celestin and Albert. During five weeks of fishing for sockeye salmon recently, the "Theresa" had a catch of 50,000, making her the high boat for the British Columbia fishing industry.

Pacific Northwest Has Pioneered International Regulation of Fisheries

By Edward W. Allen*

A DISTINCTIVE development for which the Pacific Northwest can claim credit, is the creation through treaty of joint international fishery commissions with regulatory powers over the fishermen and fishing vessels of two or more nations, both inside and outside of their national boundaries. Although demand is being made for expansion of this commission type of international fishery management in the Northwest where it has proved such an outstanding success, elsewhere it is less appreciated.

There are four international commissions dealing with fisheries in which Pacific Coast fishermen participate but which, because of the food production and international relations involved, concern the welfare of the entire nation. Inter-American Tropical Tuna Commission, created in 1950, so far is engaged wholly in research. International North Pacific Fisheries Commission, created only this year, is just emerging from the conference stage. The other two commissions, International Fisheries Commission, created in 1924, the name of which was changed last year to International Pacific Halibut Commission, and International Pacific Salmon Fisheries Commission, created in 1937, after periods of required research, have passed into the regulatory stage which does embody the new concept.

Under the fur seal treaty, the United States alone regulated the Pribilof Islands sealing and split the take with other countries. Under the world whaling and the North Sea fisheries treaties, each participating nation agreed to cause its own people to abide by specific regulations written into the treaty or otherwise mutually agreed to. But not until the United States and Canada in 1930 amended the 1924 treaty creating the International Fisheries Commission had two nations ever given a joint commission power to provide regulations from year to year for an ocean fishery which should apply to all fishermen and fishing vessels of both nations, both on the high seas and inside their own territories. It was a new concept in international relations, and it worked.

It has brought about a gradual increase of the annual halibut catch from about forty-four million pounds the year before regulation started to the record catch of about seventy million pounds this year. It has made the halibut fishery one of the most profitable to the fishermen for the time spent and one of the best stabilized fisheries in the world.

In 1937 the halibut treaty was followed by the treaty creating the International Pacific Salmon Fisheries Commission along similar lines: scientific research followed in this case by skillful engineering as well as by joint regulations. This latter commission has received much attention recently because of the remarkable recovery of the sockeye salmon fishery of the region. This year's landings were exceeded only by the record-breaking catch of 1913, and represent the largest yield in history from this particular cycle.

Features of Halibut and Salmon Commissions

Some of the features of the halibut and salmon commissions are:

1. Each commission and its staff concentrate upon one specific fishery. They are able to conduct their investigations with a year-after-year continuity which is essential in dealing with ocean fish whose life cycles extend over periods of years.

2. Adequate scientific research is a prerequisite to regulation. The commissions have been composed of men who insisted upon a practical factual but scientific approach. They selected fishery biologists who believed in getting the facts and then following them to their logical conclusions.

3. The fact that the commissioners representing the public serve without pay gives them an independence from political or group pressures, and the fact that concurrence of commissioners from both countries is necessary for any action insures careful consideration. From the outset, these commissions have followed the practice of selecting competent directors and giving them a free hand to choose their staffs.

4. The commissions have had frank, open discussion of procedures, proposals and results with the people directly concerned.

*Part of the testimony presented by Mr. Allen, who is chairman of the International Pacific Halibut Commission, at a recent Seattle hearing of the subcommittee of the Merchant Marine and Fisheries Committee of Congress.

Importance of Proper Icing of Fish in Holds

Slight increase in storage temperature above 32°F. or delay in icing fish can shorten keeping quality by several days*

THERE is no doubt that temperature is a factor of overwhelming importance in the retention of quality of chilled fish, but it also seems true that due attention has not been paid to this factor in practical handling and storage of fish. The temperature of commercial fish (codfish) aboard fishing boats oftentimes may be several degrees above 32°F., because of faulty or insufficient icing, let alone the cases where fish are iced several hours after catching.

The bacteria associated with spoilage of chilled fish belong to the so-called cold-loving species, which are still active at low temperatures, about 32°F. However, these bacteria are markedly inhibited by small decreases in temperature. This inhibition has been demonstrated in many experiments on the keeping quality of chilled fish, where fish stored at or below 32°F. kept much longer than fish stored a few degrees above this temperature. Codfish may spoil twice as fast at 37°F. as at 32°F., and experiments with herring in weak salt solutions showed similar results.

The chilling of fish is most commonly done with ice, which is almost ideal for this purpose. Ice will cool even warm fish to about 32°F. in a few hours if used properly and in sufficient amounts. When iced fish is not chilled to 32°F. the reason is solely that the fish has not been in close contact with the ice or that the ice has melted away because the amount has been too small.

Ice has to perform the double function of cooling the fish rapidly to 32°F., and of keeping the fish at this temperature during storage. These two requirements can be fulfilled always if the fish are stored in intimate contact with a sufficient amount of ice, and if sufficient ice is placed at the danger spots in the hold of the boat, where the insulation against heat transmission from outside is poorest. The amount of ice required depends on several factors (amount of fish, temperature of fish, insulation of the boat, outside temperature, length of the trip).

Insulation and Artificial Refrigeration

Considerable amounts of ice may be saved by insulation or artificial cooling of the hold of the boat. Several boats have been equipped with refrigeration or insulation with good practical results.

The insulation and refrigeration not only save ice, but also prevent the fish from being leached out by excessive amounts of melted ice water. Large amounts of ice water have been found to wash out substantial quantities of flavoring substances, amino acids and proteins from the fish flesh.

The rate at which fish is cooled when packed in ice is independent of the air temperature but depends on the size of the ice particles. Finely-crushed ice has a greater surface than coarse ice, and therefore cools the fish more rapidly. Snow can be used with good results, but some prefer flake-ice to snow, because the layer of snow tends to crack during storage so that the fish does not remain completely covered.

The melting point of water ice is 32°F. A lower temperature would be preferable and can be obtained in several ways. Sea water or 3 percent salt solutions can be cooled to 29°F. and have been suggested for cooling fish in wells. The principle has been applied in tuna boats, but it is unlikely that it will be commonly used in other types of fishing boats.

A fishing vessel has, however, recently been equipped with a new type of tank in which the fish can be rapidly cooled down and kept at a temperature of 29° to 30°F. in mechanically-refrigerated sea water. This type of tank seems to work satisfactorily.

Use of Dry Ice

Dry ice sublimates at a temperature of —109°F. and absorbs nearly twice as much heat as water ice. Combined use of dry ice and water ice has been tried in experiments with some success; besides its cooling effect, dry ice may possibly exert a direct bacteriostatic effect on account of the CO_2 liberated as gas.

Ordinary ice may be mixed with small amounts of salt (NaCl), in order to obtain a temperature slightly below 32°F. It is difficult, however, to get a uniform temperature in such mixtures. This difficulty is claimed to have been overcome by cooling the fish (sprats) in barrels containing a mixture of salt, sea water and ice.

It is perhaps theoretically possible to keep fish at temperatures slightly below 32°F. without ice by storing them (after pre-cooling) in a hold, where the temperature of the air is kept at, say, 30°F. by artificial refrigeration. Application of this method in commercial fishing, however, is very questionable.

None of the methods mentioned of storing chilled fish at temperatures below 32°F. seem to have been commercially used. In view of the importance of low temperatures for storage of chilled fish, it might be worthwhile to reconsider these and other methods. However, the first goal from a commercial point of view must be to make full use of the potentialities of water ice, i.e. to use the ice and construct the boats so that the temperature of all fish in the hold is lowered as much as possible and kept low during the whole trip.

Recent British experiments have shown that fish (codfish) may be cooled to temperatures below 32°F. by using ordinary water ice. Experiments as well as temperature measurement in fish stowed in commercial fishing vessels indicate that temperatures as low as 28° to 29°F. may be obtained in the

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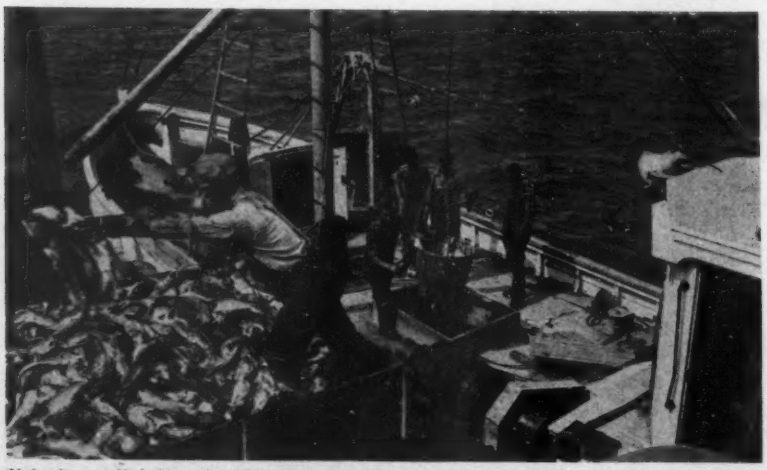
* Extracted from a recent bulletin published by the Food and Agriculture Organization of the United Nations.



Unloading codfish from the "Gloucester No. 10", which operates off the New Brunswick coast, Canada. The craft is one of the "Gloucester" type draggers built by the New Brunswick Fishermen's Loan Board, and is powered with a 120 hp. D13000 Caterpillar Diesel.

Gulf States Commission Wants Weathership Placed off Coast

Economic survey of shrimp industry also recommended at fifth annual meeting of group in San Antonio

A RESOLUTION calling for establishment of a weathership station in the Gulf of Mexico was adopted at the fifth annual meeting of the Gulf States Marine Fisheries Commission in San Antonio, Texas, October 21-22. Also recommended was an economic survey of the shrimp industry and extension of the shellfish certification program.

The Commission suggested James McPhillips, Francis W. Taylor and A. J. Wegmann for the industry advisory committee of the Fish and Wildlife Service in connection with Saltonstall-Kennedy fisheries research and market development projects to be undertaken. A plan for rotating the offices of chairman and vice-chairman between the States and for one-year terms was adopted. Montgomery, Alabama, was chosen for the March 17-18, 1955 regular meeting.

Hermes Gautier, chairman, and William J. Hendry, vice-chairman, were re-elected to serve in 1954-55. The secretary-treasurer of the Commission is W. Dudley Gunn.

Speaking on the weathership station proposal, Charles Murphy of Louisiana disclosed that widespread support is being given the idea. He said that the recently-closed weather station at Burrwood, near the mouth of the Mississippi River, leaves the Louisiana coastline without protection.

Dr. D. F. Leipper of the Committee on Marine Sciences, Southern Regional Education Board, said that while a weathership station would be costly to maintain, about $90,000 per month being estimated for three ships, it would be helpful to the Weather Bureau in picking up hurricanes which develop in the Gulf. Weathership recordings, such as seasonal changes, current patterns, etc. would be useful information for fishery studies.

Reports on Fisheries Explorations

The Commissioners heard reports from various speakers on the fisheries exploration projects being conducted in the Gulf of Mexico area. Stewart Springer, chief of the operations of the Fish & Wildlife Service's research vessel *Oregon*, said that all objectives of the past year had been completed. These included explorations for shrimp on the West Coast of Florida; a summary of all past explorations for shrimp in the Gulf of Mexico; explorations for red shrimp off the Tortugas and in the lower Gulf of Campeche; and determination of the feasibility of long-line fishing for tuna.

A colored motion picture of the taking of tuna by long lines was shown, this film having been made during the successful July cruise of the *Oregon* in the north Gulf.

The proposed program for the coming year was said to include further work on long-line tuna fishing in the Gulf proper, the Yucatan Straits and the northwestern Caribbean, such coverage being aimed at determining the availability of tuna for long-line fishermen. A second objective will be that of deep-water trawling for shrimp.

Albert Collier of the Fish & Wildlife Service, Galveston, Texas, stated that the preliminary treatment of all the *Alaska* data was completed and preparation of final reports started. Summarizing in a general way some of the results, he said that planktonic animals found over the continental shelf are about three times those caught over the deeper waters of the Gulf; that the ratio was four to one for fish larvae and fifty to one for fish eggs; that the northwest, northeast and southwest sections of the Gulf were most productive of plankton and the areas receiving drainage from the Mississippi River the most prolific. Plant nutrients were said to be low at the surface and reach a maximum at about 2,000', decreasing slightly below this depth.

The "Fair Moon", 67' shrimper owned by Hail Seafood Co. of Tampa, Fla., and powered with a 120 hp. Caterpillar D13000 Diesel. She was built by Diesel Engine Sales, Inc., St. Augustine, Fla., and is equipped with Snow-Nabstedt 3:1 reduction gear, Twin Disc power take-off, 5-blade, 48 x 44 Columbian propeller, and 3 kw. Onan Diesel generating set with Jabsco pump.

Mr. Collier referred to the possibility of fisheries being developed in the Gulf of Mexico which scientists do not now know about due to the depths to which photosynthesis takes place, depths greater than average because of the clear waters necessary to support plankton. Rapid progress was reported on keeping alive microscopic plants and animals under controlled conditions at the Galveston laboratory. This work will provide a solid foundation for inquiries into the early life processes of commercial shrimp.

Red Tide Research

A summary of red tide activities for the past year and plans for the immediate future was given by William B. Wilson, who is in charge of red tide studies for the Fish & Wildlife Service at Fort Myers, Fla. He said stations from Indian Rocks, near Clearwater to the Ten Thousand Islands were established to determine the concentration of *Gymnodinium brevis* (the red tide organism), water temperatures and salinities.

It was stated that the red tide organism is constantly present at one or another locations in the area, and that the concentrations are sufficient to kill fish. However, most of the fish kills affect only small areas and are of short duration. Copper sulphate has been used on two red tide concentrations during the year, but additional experiments are necessary before the chemical can be recommended.

Hydrographic and climatological data are being collected with the objective of being able to forecast outbreaks of the red tide. Cultures of the red tide organism have been developed in the laboratory, and experiments are progressing to find an algicide which would kill the organism but not seriously affect other marine life. Effort is being made to establish the range of tolerance and optimum conditions relating to growth of the organism as an aid to forecasting occurrences.

In discussion, D. C. Jones, Jr. of Florida said a recent red tide outbreak south of Fort Myers resulted in a meeting at which several fishermen said the tide had been present off and on for years, but seemed to be in larger amounts since Lake Okeechobee waters had been drained in large volume to the southwest Florida coast. Dr. C. P. Idyll of the University of Miami Marine Laboratory stated that a survey for the Corps of Engineers had been made which showed the fresh lake waters when passed in large volume eastward to the Atlantic did not kill fish, but did cause them to leave their normal habitat.

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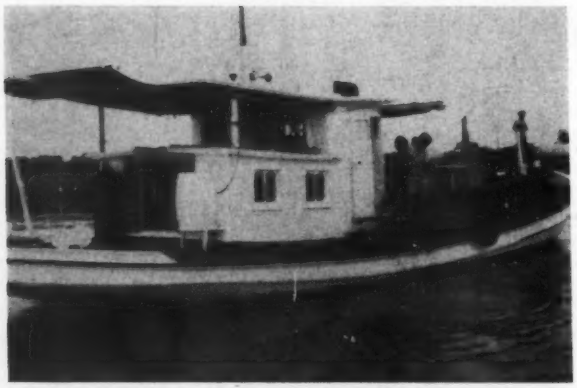


J. J. Galjour's 55' x 15' x 4' oyster dredger "Louisiana" of Cut Off, La. Power is furnished by a 55 hp. Caterpillar Diesel with 34 x 30 Michigan propeller. RPM lubricating oil and Columbian cordage are used.

Louisiana Shrimp Trawlers Make Good Catches

October, always a good shrimping month, proved unusually productive this year. Trawlers brought in catches ranging from 40 to 75 barrels.

Joe Galloway, champion shrimper in 1953, topped all other captains in the Twin City Fishermen's Cooperative fleet in October, with a catch on October 22 of 75 barrels, unloaded from his vessel the *Jean Francis*. Other trawlers in the fleet had 66 and 73 barrels, and practically all had 50 barrels or better on their last trip.

Production for the last quarter in the Cooperative plant at Morgan City amounted to 400,750 lbs. The Port Isabel branch plant packed 521,300 lbs. In October, boats unloading at the Cooperative in Morgan City had 137,100 lbs.

The Deep South Seafoods plant in Berwick had a busy month in October, unloading and packing shrimp which the firm sells under the Bella Brand. Production by the fleet of trawlers fishing for Deep South amounted to 458 barrels or 469,450 lbs.

The *Venture*, owned by John Davidson and Charles Nagim of Berwick, was high boat of the fleet with 69.5 barrels. The *G. Marconi*, owned by Vernon D. Jackson of Patterson and captained by Huey P. Knapp, was second high with 50.3 barrels. Third place went to the *Shirley H. II* with 49.4 barrels. She is owned by J. J. Hebert and Capt. Marvin King. The *Toots* was number four boat in the fleet in October, with 47.2 barrels. Vincent Guzzetta is owner and Mann Gaudet captain.

The latest addition to the Deep South fleet is the trawler *Julie Rose*, owned by Vincent Guzzetta and W. D. Jackson. The vessel was built by the Chauvin Boat Co. of Little Caillou.

Records show some 5,497 barrels of Louisiana shrimp were taken by Mississippi trawlers during October, which is an increase over September's total of 4,877 barrels and a considerable jump over August's total of 1,809 barrels. According to indications November's catch was expected to compare favorably with the previous month.

Scientists Report on Gulf of Mexico

The Gulf of Mexico, as seen through the eyes of scientists, is described in a 604-page bulletin titled "Gulf of Mexico—Its Origin, Waters, and Marine Life", released by the Fish and Wildlife Service. This exhaustive treatise was prepared primarily as a guide for scientific research projects, a number of which are now being conducted in the Gulf by Federal, State and private organizations.

Written by 55 American scientists concerned with the physical and biological aspects of the Gulf, and coordinated by fishery research biologist Dr. Paul S. Galtsoff of the Fish and Wildlife Service, the publication is the result of three years' of cooperative effort. It discusses early explorations in the Gulf and summarizes all available information on its shorelines, geology, meteorology, physics, chemistry, and communities of plants and animals ranging from the bacteria through the marine mammals.

Copies of the publication, designated as Fishery Bulletin 89, may be purchased from the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C. The price is $3.25 per copy.

Shrimp Pack Off

Shrimp canning in the Gulf of Mexico area continues to run substantially behind last season, with the total output during the period from August 1 to November 20 being 11% less than in the same time last year. Pack continues held down due partially to low raw shrimp prices that don't tempt the full fleet to stay out. Major pack is about finished, with inside waters of Louisiana officially closing December 15 until the Spring.

Shrimp at Restaurant Exhibition

Louisiana shrimp and remoulade sauce were featured at the East-South restaurant exhibition at the Shoreham Hotel in Washington early this month. Barrels of shrimp from Houma and Morgan City were made available by the Wild Life and Fisheries Commission.

At the Louisiana booth a large relief map showing Louisiana fishing grounds was displayed. The booth was lined with pictures of Louisiana fishing craft, both of the inshore and deep-sea types.

Mississippi to Open Planted Oyster Reef to Dredging

Mississippi's Seafood Commission on November 12 said that its project to develop St. Joe oyster reef was so far beyond expectations that the reef will be opened to commercial dredging, possibly on January 1.

St. Joe reef had been planted by the Commission earlier this year with 75,000 barrels of shells. The reef is located immediately on the Mississippi side of Pearl River channel in Mississippi Sound at the point the river flow meets the old St. Joe barge channel.

Chairman Walter Gex of the Commission said that with the prospect of the new reef, oystermen this year may have a 200,000-barrel harvest as compared to a 90,000-barrel catch last year.

New Fishing Vessels

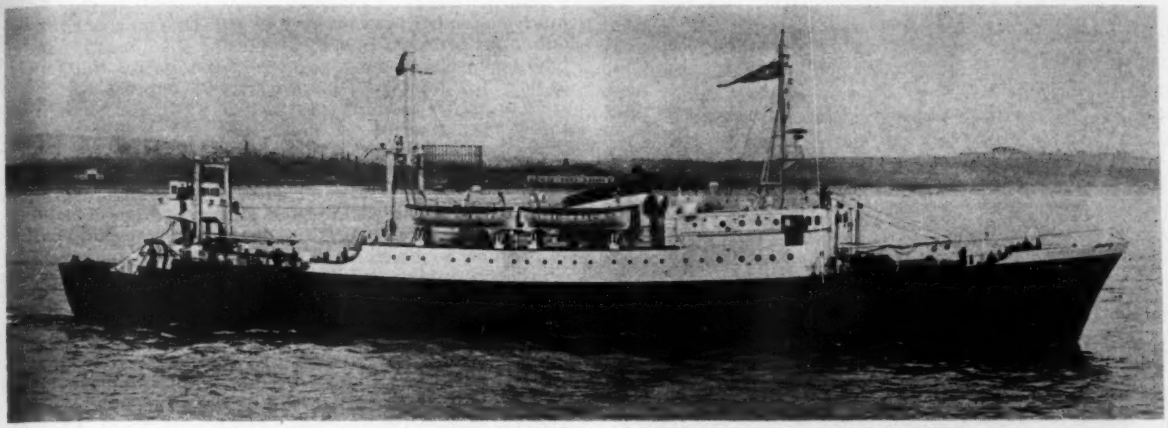
Two new vessels have recently joined the Mississippi fishing fleet. They are the *Miss Agnes*, built by the Arthur Shipyard, Gulfport, for E. V. Stork of Pascagoula. The vessel is 47 ft. long, 15.2 ft. wide and 5.4 ft. deep. The second addition is the *Olivia Jeanne*, built for Steve and Peter Kuljis of Biloxi by the Toche Boat Builders, also of Biloxi. The vessel is 53.1 ft. x 18 ft. x 5.9 ft.

Fishery Landings During September

Landings of fishery products at Mississippi ports during September amounted to 5,761,000 lbs., compared with 7,129,000 lbs. landed during the corresponding month of the previous year.

Menhaden production slumped noticeably during the month, and was 1.7 million lbs. below the poundage in September 1953. Total landings of this species for the first nine months of the year amounted to 69 million lbs., compared with 49 million lbs. during the same period in the previous year. Shrimp receipts were over 1.1 million lbs. lower during the current nine-month period than during the first three-quarters of 1953.

Landings of all fishery products at Mississippi ports for the nine-month period ending with September 1954 amounted to nearly 83 million lbs., compared with 65 million lbs. during the corresponding period of 1953.



The 245' Scottish factory trawler "Fairtry" owned by Christian Salvesen and Co. of Leith.

Factory Trawler "Fairtry" Commences Operations

Maiden trip of Scottish ship is successful, with crew getting fish from sea into holds completely processed in 6 to 12 hours

ON her first voyage, the 245' Scottish factory trawler *Fairtry* proved to the satisfaction of the owners, Christian Salvesen and Co. of Leith, that quick-freezing at sea is a practical proposition. What remains to be demonstrated is the economic level which must be reached in terms of realized prices to make voyages of a given length profitable.

The *Fairtry* landed her maiden trip last July after a three-month voyage to Greenland and Newfoundland waters. She made port at Immingham near Grimsby and unloaded 290 tons of quick-frozen cod fillets in 7-lb. packs, 170 tons of whole mixed fish, 86 tons of fish meal and 4200 gallons of liver oil. While the owners admitted that a bigger catch would have been welcomed, against this they accepted the fact that the crew was new to the different technique involved in stern trawling.

According to the master, the *Fairtry* behaved splendidly on her first trip off the Newfoundland Grand Banks. Experience of this voyage has suggested that Newfoundland and Greenland trips will follow, since Iceland, Bear Island or White Sea fishing would not afford the volume of fish necessary to make operations economic.

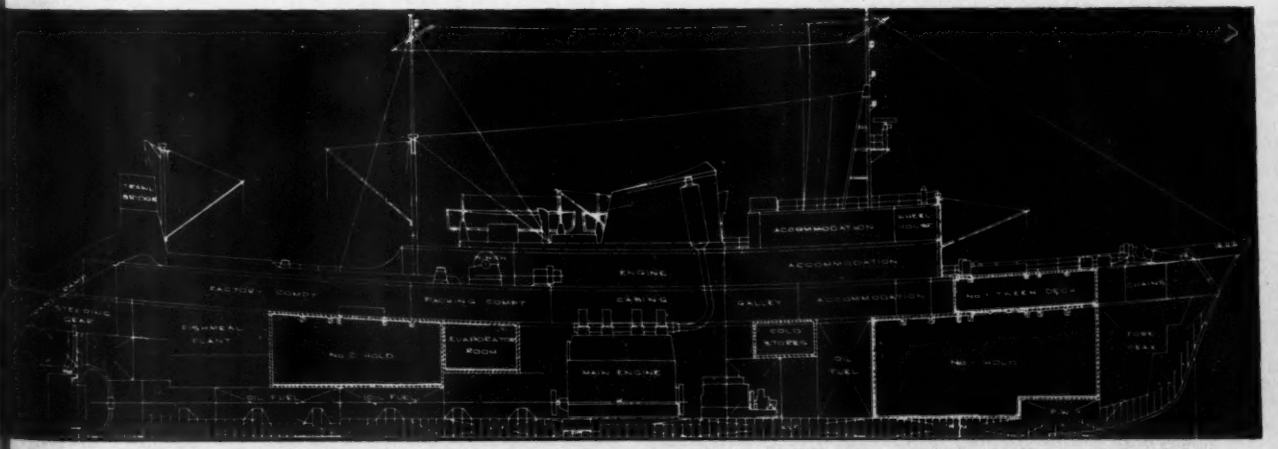
As for the stern trawl, the Captain said on the whole he thought it was a very good thing. He did not, however, believe that it would prove satisfactory in fishing vessels of the conventional type. The stern trawl meant a winch and a fish room astern as well.

Commenting on the *Fairtry's* maiden trip, E. S. Sealey, sales manager for the owners, said: "We are very satisfied with the trip and I can say people will be tasting sea-fresh fish ashore for the first time. We shall draw no major conclusions for twelve months, however, and we hope to have four or five trips by then. Considerable progress in the right direction has been made during this trip, but it will take several voyages before we are able to draw final impressions and results. We have been able to get fish from the sea into the holds completely processed in between six to twelve hours, depending upon the rate of catching.

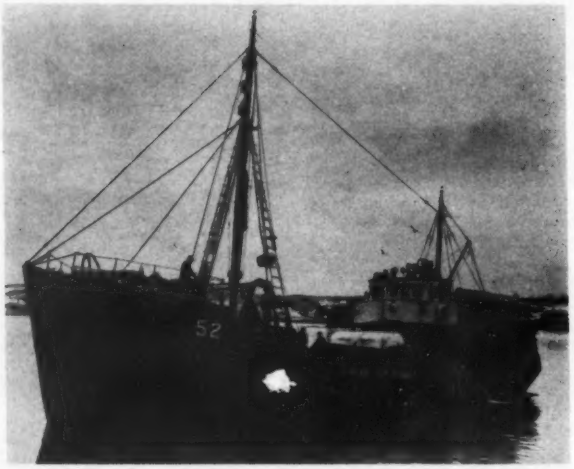
"Though it is hoped that future voyages will show the *Fairtry* is capable of much greater production, the management feels that a good start has been made. Some rearrangement of the factory deck machinery will take place while the ship is at Immingham, but broadly speaking, the ship's main, auxiliary, or refrigerating machinery, gave no cause for concern on the voyage."

Patterned After "Fairfree"

The *Fairtry* has a breadth of 44' and gross tonnage of 2,605. Built by John Lewis and Sons Ltd., of Aberdeen,



Sectional profile of factory trawler "Fairtry", which has a length between perpendiculars of 245'. She was built by John Lewis and Sons Ltd. of Aberdeen, Scotland.



The 98' "Marion Crouse", commissioned at Lunenburg, Nova Scotia, in 1947 for Crouse Fisheries Ltd. Her seven years of continuous successful operation, 11 months of each year, is attributed to the fact that she has been able to land her more than 3,500,000 lbs. of fish annually without lay-up for repairs. The dragger is powered by an Atlas Model 6 HM-2124 engine of 400 hp. at 300 rpm.

she is Britain's first fishing vessel designed and constructed from the keel up as a factory trawler. Her design follows experience gained by the Salvesen Company with the *Fairfree*, a vessel converted for similar operating methods.

Unlike the orthodox trawler, the *Fairtry* fishes over the stern. Gallows frames of special design, one port and one starboard, are fitted on the main deck aft and center, and side bollards are situated on the bridge deck, giving a fair lead for the trawl warps to the 7-ton electric winch which is housed below a boat deck extension and is capable of taking 1200 fathoms of ¾" warp on each barrel. The net is emptied on the deck and the fish pass through hatches to pounds in 'tween decks, where the processing commences.

Machinery is located midships with No. 1 refrigerated hold and No. 1 refrigerated 'tween deck forward, and No. 2 refrigerated hold aft. The aft end of the bridge deck is the trawling deck, with the factory deck immediately below. Officer and crew accommodations for 82 persons are located forward of the working deck. The Captain and wireless officer are accommodated in the navigating bridge deckhouse.

The fish meal plant is situated below the factory deck along with the standard set of four liver boilers which will operate with tankage to take about 50 tons of liver oil. The batteries of quick freezers are at the forward end of the factory deck. Refrigerating machinery is in the main engine room, and the evaporator room is on a flat at the after end of the machinery space. Fuel oil is carried in double bottom tanks below the engine room, in cross bunker tanks and tunnel wing tanks, making a total of 15 tanks each fitted with pneumercator depth gauges. Fresh water is carried in the fore peak tank and No. 1 and 2 double bottom tanks and also feed water in tanks aft. Liver oil storage is arranged in tanks aft.

Processing Equipment

Factory deck equipment is extensive, and is designed to minimize the handling of fish. The processing of the catch includes gutting, washing, heading, filleting and skinning, wrapping, weighing, quick-freezing, packaging and conveyance to the refrigerated holds. Arrangements also have been made for quick-freezing whole fish or fish steaks. The heading machine and filleting and skinning machines are electrically operated and fully automatic.

There are two batteries of quick-freezers. Fair freezers are installed on the port side, and a battery of special multi-plate frosters is located on the starboard side. Other facilities include spray glazing machines, a carton binding machine and a scale ice machine for the supply of flake ice to pre-cool the fish prior to processing.

To minimize handling, a conveyor system extends from the factory deck to the holds with spiral chutes to the lower holds. The fish meal plant consists of four steam-jacketed concentrators connected by hoppers to a worm conveyor and then to a grinder with arrangements for stowing the fish meal in bags. The plant is rated at 12 tons of raw fish per day, and there is a storage capacity of 100 tons of dried meal directly beneath the deck on which the filleting machine is fitted.

The two lower holds and No. 1 'tween deck are fully refrigerated; they are aluminum-sheathed and Rocksil and Onazote have been extensively used as insulating materials. Fish room posts are of galvanized steel, and the pound boards and shelves are of extruded alloy. Long distance thermometers are fitted in the refrigerated holds, which have a capacity for 600 tons of frozen fillets, or 450 tons of frozen whole fish.

The main refrigerating plant consists of three 14" x 9" electric-driven compressors using Freon 12 gas. In addition, one Mark 3 M.F. electric-driven Freon compressor has been installed which is capable of maintaining the hold temperatures. The refrigerating machinery can freeze 30 tons of fish a day, and maintain a temperature of —5°F. There also are large domestic refrigerated chambers, on account of the large crew and lengthy duration of voyages.

Electric power is supplied by four 245 kw., 200-volt direct current generators. The main switchboard, which is arranged also to take a shore connection, extends the full width of the ship at the fore end of the engine room. A small motor alternator is installed to supply power for the factory deck machinery which has a separate switchboard.

Propelling machinery, which is located amidships, consists of a four-cylinder opposed piston-type Diesel engine, developing 1,900 bhp. at 135 rpm. Auxiliaries for the main engine consist of valve cooling water pumps, sea water circulating pumps and forced lubrication oil pumps.

Riveted Construction

The vessel is constructed with transverse framing throughout. She is generally of riveted construction except for the shell butts, deck seams and butts, bulkheads and tanktop which are welded. All decks are completely steel-plated. Navigating bridge and trawl bridge are of aluminum in way of the compass radius. Exposed decks over accommodations are sheathed with 2½" gurjun. The underside of the bridge deck in way of the factory deck is insulated with Rocksil and faced with sheet metal.

The *Fairtry* has a flat plate keel, soft nose clipper stem, cruiser bow and special type cruiser stern incorporating the trawl ramp. The main deck is continuous fore and aft and the bridge and forecastle decks which are combined extend aft to the trawl bridge—a special structure straddling the trawl ramp and giving a clear view aft and forward over the working deck.

The superstructure, slightly forward of amidships, is about one-third of the length of the ship, and is surmounted by aluminum alloy lifeboats, gravity davits, a modern flat-oval funnel, and a navigating bridge at the forward end on which is stepped a tripod mast. The derricks attached to the forward end of the superstructure serve a fore hatch. Derricks attached to the mainmast at the after end of the superstructure and the derrick posts at the forward end of the after bridge handle loading and discharging of the fish deck.

The electric hydraulic steering gear is fitted with twin motors. It is operated by telemotor control from both the main wheelhouse and the trawl bridge.

The *Fairtry* has four Kelvin Hughes echo sounders for fish finding and navigation. Two have a basic scale from 40 to 400 fathoms, but by phasing this range can be extended to 2250 fathoms. The other two sounders have a basic range from 0-120 fathoms, which can be extended to 720 fathoms.

Gloucester Fish & Wildlife Office Has New Chief

Dwight L. Hoy, 28, recently has been appointed chief of the Gloucester office of the Fish & Wildlife Service, coming from New Orleans, La., where he has been acting as statistical agent for two years.

He was graduated with the degree of bachelor of science in fisheries from the University of Washington Fisheries School in 1950. After graduation, he served for five months as biologist with the State Dept. of Fisheries in Washington, then joined the Fish & Wildlife Service.

He was first stationed at Beaufort, N. C. as a statistical agent for two years, then in a similar capacity for two years more at New Orleans. Hoy will succeed Charles H. Lyles who goes to New Orleans, where he will be engaged in setting up a system of collecting shrimp statistics.

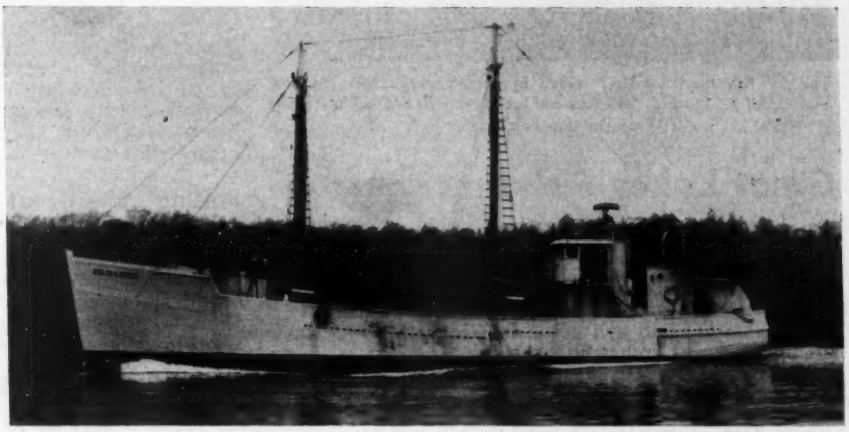
Usen to Build New Freezer

A new 10-million pound freezer is in prospect for Gloucester in the near future, according to announcement by Irving Usen, head of O'Donnell-Usen fish company of Boston and Gloucester. He said his firm will erect a fish stick plant and a freezer with capacity between 5 and 10 million lbs.

steel double sink. Berth fronts and trim throughout the fo'c's'le and lower after cabin are of mahogany.

The lower after cabin has two built-in berths, locker space and storage space. A hot water boiler will supply hot water heating for the engine room, after cabin, pilot house, electronic room and Captain's stateroom. The after structure includes the wheelhouse, electronic room and master's stateroom.

Fishing gear on the main deck is arranged for dragging on both sides. There is a "Gloucester" winch with capacity of 600 fm. ⅞" wire per drum. Other equipment includes RCA Fischlupe and RCA 100-watt radiotelephone, Raytheon radar, Fathometer and Loran.



New 112' dragger "Evelyn C. Brown", owned by Capt. Louis Brown and associates of Gloucester, Mass. She was built by Harvey F. Gamage, Shipbuilder, South Bristol, Me., and is powered by a 425 hp. Cooper-Bessemer Diesel.

Leads in Whiting Landings

Gloucester has, since 1951, accounted for more than half of all the whiting caught in Massachusetts, and this year promises to be the biggest of all. Through August, Gloucester had 32,612,380 lbs. of whiting, while the figure for the entire State was 49,746,340 lbs. Gloucester whiting landings were unusually heavy for the months of September, October and November.

Whiting Dragger Sinks

The 40-ft. Gloucester whiting dragger *Johnny Baby*, owned and skippered by Capt. Rosario Testaverde, foundered and sank off Eastern Point last month. Her three-man crew, after taking to a 10-ft punt, were rescued by the whiting dragger *St. John*, Capt. Salvatore Nicastro.

New Dragger Leaves on Maiden Trip

The new 112' x 23' dragger *Evelyn C. Brown*, owned by Capt. Louis Brown and associates of Gloucester, left on her maiden fishing trip early in December. She was built by Harvey F. Gamage, Shipbuilder, South Bristol, Me., and was designed by Dwight S. Simpson of Newton, Mass.

The vessel's planking is 3" oak, while decking is 3" white pine, and frames are 6" oak, double sawn, moulded and spaced on 24" centers. The keel is 12 x 12 oak, and fastenings are galvanized.

Power is supplied by a JS-6DR, 13 x 16 Cooper-Bessemer Diesel, rated 425 hp. There is a 2-cylinder Lister Diesel which operates a generator, air compressor and bilge pump. Six welded steel fuel tanks have a total capacity of 11,000 gals. Storage batteries are 115-volt Exide.

The fo'c's'le has ten built-in berths, hardwood mess table, Shipmate No. 450 oil-burning range, fresh water tank of approximately 1400 gals., built-in electric refrigerator, hand pump for fresh water and a stainless

New Jersey Target Practice Area To Be Abandoned by Navy

The two Navy designated "danger areas" affecting fishing at the southern tip of Long Beach Island and a large portion of the Mainland have been virtually abandoned as the result of a series of conferences between southern Ocean County officials and District Army Engineer, Colonel Robert K. Fleming. The Army has agreed to definitely end the use of mainland areas for target practice and use an area off the Brigantine Shoals only on scheduled days.

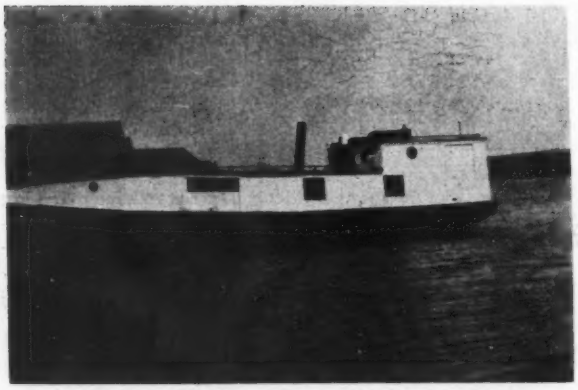
State Senator W. Steelman Mathis and Ocean County Freeholder A. Paul King conducted the discussion with Colonel Fleming, who is permitted to pass upon the Navy request. Mr. King will now carry on extended conferences with Navy representatives to make a final determination of the problem.

It developed that for several years past Navy planes have been practicing in the Bass River sector without permission of private land owners. Local officials maintained that both areas interfere with the economy of the County.

Cummins Philadelphia Dealer in New Quarters

Cummins Diesel Engines, Inc. has moved to new quarters at 4140 Whitaker Ave., Philadelphia 24, Pa. The new facilities are in a single story structure containing 25,000 sq. ft. of area, and located on a three-acre tract. The engine rebuilding section includes an engine dynamometer room, cleaning room and machine shop. Loading ramps and overhead cranes expedite handling of engines.

The Philadelphia location is headquarters for the firm's Cummins dealership which includes branches at Pittsburgh and Ashland, Penn. and Baltimore, Md. Ralph W. DeLuca, who has been with the firm for 15 years, has been appointed Philadelphia branch manager and vice-president.



The 40' fish tug "Rambler" owned by Joseph Desjardine of Grand Marais, Mich. She uses Gulf fuel and lubricating oil and has Michigan propeller and Balch nets.

Great Lakes Fishermen Are Having Average Fall Season

Commercial fishermen operating on the Great Lakes have been getting sizable yields of herring in usual areas, good yields of chub and perch in Green Bay and Lake Michigan areas, and whitefish production from Lake Superior and Lake Michigan, generally, has been in fairly good commercial quantity.

On Lake Superior, gill net fishermen, when the season reopened November 4, set nets for lake trout and reported fair catches. Later in the month catches tapered somewhat but generally deepwater producers were coming up with fair catches. Shoreward takes were poor. Commercial herring fishermen in Minnesota, Wisconsin and Michigan waters of Lake Superior were getting nice catches during the spawning run.

In the Green Bay area, herring producers were getting nice yields of lake herring, while chub and perch takes were also consistently good. In December, gill netters will again fish for whitefish, and expect to fish for smelt, too. Smelt already have increased in abundance in the bay.

On Lake Michigan, producers were getting good catches of chubs. Wisconsin fishermen, permitted by law to fish for chub during closed season this year, were taking good commercial quantities of chub off Sturgeon Bay and Milwaukee, Wis., and lots of lake perch also are being netted. Whitefish netting resumed after December 10 when the season reopened on Lake Michigan.

From Lake Huron, primarily from the Saginaw Bay area, lake perch, herring and bullheads, were in fairly good production, with herring at the top.

Up until the closed season, which became effective December 1, Michigan fish production from Lake Erie was, generally, substantial. Best reported commercial yields were in white bass, lake perch, sheepshead, yellow pike, blue pike, carp, with suckers having been in fairly good commercial production.

Commercial fishermen operating out of Port Clinton, Huron, Sandusky, Lorain, Cleveland, Ashtabula and Conneaut, Ohio, were reportedly getting fairly good commercial takes of lake perch, blue pike, yellow pike, sheepshead and carp.

At Erie, Pa., fishermen were reportedly getting fairly good takes of blue pike, yellow pike, and yellow perch. Fishing was about the same off Dunkirk, N. Y.

Boat Builder Plans Expansion

T. D. Vinette Co., Escanaba, Mich., builders of steel-hull trap net boats and other equipment, plans to build a new and larger plant during the Winter. Widely used on the Great Lakes by commercial fishermen, Vinette steel-hull trap net boats are designed with a cabin forward to provide most of the length of the boat for fishing.

Discuss Herring Price

Menominee County Fishermen's Association met recently in Menominee to discuss the herring season. Wendell Beaucock, association president, said commercial herring fishermen from Fayette, Escanaba, Garden, Washington Island, Gill's Rock, Sturgeon Bay, Suamico, Oconto and Peshtigo attended. One of the chief problems discussed was setting of a standard price for herring taken in the Green Bay area.

Hagen Brothers to Retire

Charles and Jules Hagen, Great Lakes fishermen of St. Ignace, Mich., who have been in business for about 50 years and have been commercial fishing for nearly 60 years, are retiring before the first of next year. Both started fishing at Washington Island.

They moved to St. Ignace in 1923 from Washington Island and there established the Hagen Fish Co. Their 42-ft. boat, the *F. Hunter*, which has fished for 38 seasons, has been sold, but they still own their dock on the St. Ignace waterfront.

Raising Lake Trout Stock

Though sea lampreys have reduced lake trout populations in Lakes Michigan and Huron, Michigan Conservation Department and Fish & Wildlife Service workers are continuing hatchery and research work with an eye toward the future of the fish. Specialists from Fish & Wildlife Service are making a long-range study of the fish.

At the Conservation Department's Marquette hatchery, a pilot brood stock experiment has been under way about six years. A number of the fish have reached maturity and the important question of whether of not they will spawn in captivity is expected to be answered shortly.

Lake, or Mackinaw trout experiments are also being conducted from Higgins Lake. Conservationists want to know if wild fish netted from this lake can be used to provide spawn.

Fisheries Legislation

A bill to bring Wisconsin and Michigan non-resident commercial fishing licenses into agreement has been approved by the State Conservation Commission for submission to the 1955 Wisconsin Legislature. It would license Wisconsin residents at the rate of $1 per foot of boat length, with $16 and $75 limits, instead of on gear fished as at present. Non-resident licenses would be triple.

Another bill which was approved by the Commission would permit suckers to be shipped out of season, because commercial fishermen can get a better price by holding them.

New Chrysler Dealer for Chicago

Appointment of Henry C. Grebe and Co., Inc., 3250 North Washtenaw Ave., Chicago, as Chrysler marine engine dealer for Chicago, has been announced. Active management of the organization is carried out by Mrs. Grebe, widow of the founder of the Company. The two started the firm in 1921, and it has become one of the Chicago area's major shipyards.

Alabama Landings for Six Months

Total landings of fishery products at Alabama ports for the six-month period, April-September inclusive, amounted to 6.9 million lbs. Shrimp production was approximately 4.1 million lbs., and accounted for 60 percent of the six-month total.

The catch of fishery products during September totaled 1,269,000 lbs., a decrease of 30 percent compared with the yield of the previous month. The marked decline in production was caused by a 644,000-pound drop in shrimp receipts.

Salmon purse seiners at Everett, Wash. The fishing gear shed on the dock is divided into stalls for individual boat owners.

Washington Voters Defeat Salmon Fishing Measure

A controversial initiated measure to regulate commercial salmon fishing was defeated by Washington State voters at the general election following a campaign fight between commercial fishermen using divergent types of gear. Purse seine vessel owners had favored the proposal, while opposition came from reef net owners and gill-net operators.

The proposal would have outlawed the use of reef nets as legal gear for catching salmon; restricted use of gill-nets within the inner waters of Puget Sound to the period October 5-November 30; established or re-established by law certain salmon preserves which are closed to commercial fishing; permitted a 20-day fishing period during odd years for humpback salmon in an area north of Brush Point.

Chinook Salmon Runs Above Average

The Washington State Department of Fisheries reports that chinook salmon runs into Puget Sound hatchery streams are more than 50 per cent above the average for the past 15 years. The Department said this year's hatchery counts have been topped only four times in the past 15 years. The egg harvest at salmon-rearing stations this year totals 18,460,000 eggs.

Salmon Spawning Grounds Opened

Another four miles of spawning grounds for salmon in Washington State were opened last month along the south fork of the Willapa River. A fishway has been blasted out of native rock to allow spawning salmon to negotiate a 12-ft. fall, six miles above the stream's mouth.

Seattle Landings for November

A total of 672,500 lbs. of fish were landed at Seattle in 32 trips by the otter trawl fleet during November. The catch was approximately 400,000 lbs. less than in the previous month. English sole ranked first among the varieties, with 171,900 lbs., followed by true cod, with 158,450 lbs., which was about 100,000 lbs. less than in October.

The halibut fleet landed a total of 356,200 lbs. of fish in November, for a drop of about 200,000 lbs. from the previous month. Sablefish (268,500 lbs.) predominated. Halibut was next with 37,900 lbs., trailed by ling cod, 27,000 lbs., and rockfish, 22,800 lbs.

Pink Salmon Eggs Transplanted

The successful transplanting of 450,000 pink salmon eggs from a wild river in northern British Columbia to hatchery trays in a placid rearing station near Seattle was accomplished in 19 hours recently. The purpose was to establish an even-year run of pink salmon in Puget Sound streams. The eggs were transported in five-gallon cans, via airplane, ship and truck.

Westport Salmon, Tuna and Crab Landings

Salmon landings in Westport are well over the two-million-lb. mark, the Port of Grays Harbor recently reported. September landings of 219,600 lbs. at Westport raised the total for the first nine months of the year to 2,035,100 lbs., and additional catches continued to pour in after that.

The first tuna landings of the year were reported in September—8,800 lbs. Crab production of 477 dozen raised the year's total to 95,650 dozen.

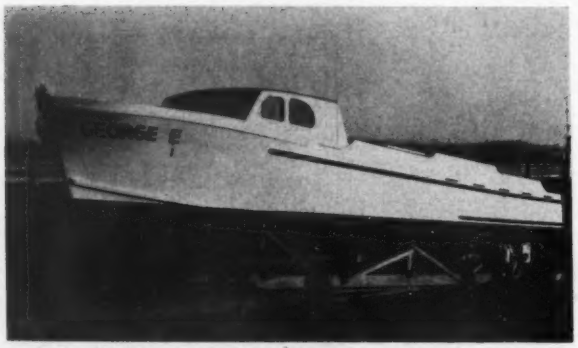
Salmon Industry Opposes Copper River Dam

A resolution protesting the construction of a dam on the Copper River was adopted at the 41st annual convention of the Association of Pacific Fisheries at Seattle on November 1. An address was delivered to the Association on this subject by G. P. Halferty whose company has been engaged in processing salmon in the Copper River area for many years. Mr. Halferty pointed out that the fish runs of the Copper River are a perpetual resource if properly protected, and one which the benefits of the proposed dam could not equal.

Vance Sutter, who has served as president of the Association for several years, has retired and his successor is Guy V. Graham of Libby McNeill & Libby. Other officers elected include: C. F. Johnston, first vice-president; A. W. Brindle, second vice-president; J. F. Sandoz, third vice-president; Aubin Barthold, fourth vice-president; Ernest D. Clark, secretary-treasurer.

Bellingham Fish Production

During the four-week period ending November 27, a total of 1,363,450 lbs. of fish was landed at Bellingham in 39 trips. Nearly half of the catch was made in the week



Capt. Bert Erickson's new 48½' crabber "George E." of Newport, Ore. Her hull is of plywood, over which is a coating of Fiberglas, and she is powered with two General Motors Diesels.

Oregon Experimenting with Hatchery-Reared Fish

The Oregon Fish Commission is attempting to find out by a series of experiments now underway at Big Creek salmon hatchery near Astoria, how large hatchery-reared salmon and steelheads should be when released, and how many of the artificially-produced fish are caught by commercial and sport fishermen.

George Y. Harry, Jr., Fish Commission Director of Research, announced that 126,000 Big Creek hatchery fish to be used in the experiments have been marked for life by the removal of certain fins. Eighty thousand of the marked fish are silver salmon and the other 46,000 are steelhead trout.

Harry explained that the silver salmon have been graded into two size groups, each group marked differently, in order to determine the best liberation size of hatchery-reared silvers. The steelheads are also of two distinct size groups, and will be tested for optimum liberation size.

Results of the experiments will be unknown for at least two years because the marked fish aren't expected back before then. By examining sport and commercial catches, biologists will be able to calculate how many of the hatchery-reared fish are taken by netters and anglers.

Would Enlarge Market Research Program

The Oregon Seafood Producers of Astoria have submitted to the Fish & Wildlife Service a project for enlarging and improving the market research program for fish products. The Astoria group hopes to receive Federal appropriations for the project.

The producers ask that funds be provided out of the $3,000,000 which the Fish & Wildlife Service will receive annually from the Saltonstall bill. The three-year program would cost from $200,000 to $300,000.

ending November 6, when 580,000 lbs. were brought to port.

Pacific Ocean perch again took the lead, with landings of 430,600 lbs. True cod was the runner-up, production of this variety having amounted to 281,000 lbs.

Ruthford Heads Northwest Fisheries Group

E. A. Ruthford of San Juan Fishing and Packing Co., Seattle, Wash., was elected president of the Northwest Fisheries Association at the annual meeting held in Seattle on November 19. Palmer G. Olsen, New England Fish Co., R. A. Littlefield, Seattle Sea Foods, Inc., and W. C. Eardley, Jr., Eardley Fisheries, Inc., all of Seattle, were named vice-president, secretary and treasurer, respectively.

Crabber Built of Fiberglas-Coated Plywood

The new 48½' *George E.*, designed and built by Joseph McGlasson for Capt. Bert Erickson of Newport, Ore., marks a change in ocean-going crab boats. She is constructed of plywood, over which is a coating of Fiberglas. The wood was covered with resin and the glass cloth then was laid on and processed with more resin. Mr. McGlasson also made the boat's fuel and water tanks and the smoke stack of Fiberglas.

It is claimed that the new construction method doubles the strength of a boat's hull, and that the material is unaffected by salt water and resistant to barnacles. It also is said that no caulking is needed, and that very little upkeep, such as painting, is required.

The *George E.*, which has a beam of 13'6" and was named for the owner's son, can be readily adapted to salmon or tuna fishing. The lines of the V-bottom craft are sleek and modern, enabling her to make 22 mph. The pilot house on the vessel is forward, and she has a fish hold capacity of 12 tons. There are accommodations for three men.

Two General Motors Diesels furnish power for the 24 x 24 propellers which turn on 2" Monel shafts through 1½:1 reduction gears. The *George E.* has 12-volt Willard batteries, C-O-Two fire extinguishers, Northill anchor, Maxim silencer, Twin Disc clutch, Bendix depth finder, 65-watt Fisher radiotelephone and Olympic galley range. RPM lubricating oil is used, and there is an automatic steerer.

Silver Salmon Released

Irvine French, Director of Fish Culture for the Oregon Fish Commission, last month announced that 120,500 silver salmon fingerlings recently had been liberated in three Willamette River tributaries.

French stated that 50,000 of the four-inch fish were released in the Yamhill River, 45,500 in the Tualatin and 25,000 in the Molalla River. All of the fingerlings were reared at the Fish Commission's Sandy River hatchery, and are the offspring of 225 adult fish salvaged at Oswego Creek last Winter.

The Yamhill River fingerlings were marked by the removal of the right ventral fin. Thus, if any silver salmon appear in the Yamhill in the next two years, either as jacks or adults, the Fish Commission will be able to determine if the spawners are a direct result of the recent plantings.

Goble Creek Fishway Completed

M. T. Hoy, State Fisheries Director, announced recently that the Oregon Fish Commission's Engineering Division has just completed a $21,000 fishway on Goble Creek, a stream which empties into the Columbia River near the town of Goble.

The new fishway, started in 1953, will open up six miles of suitable spawning area, to be utilized principally by silver salmon and steelhead trout. First fish expected to utilize the Goble Creek fishway would be returning next year from a May, 1954 liberation of 25,000 silver salmon fingerlings above the falls.

Section of Jordan Dam Removed

A ten-foot section of the abandoned Jordan Dam on Thomas Creek, a South Santiam River tributary, has recently been removed by an Oregon Fish Commission engineering crew. The dam had been a partial obstruction to steelhead and spring chinook salmon migrating up Thomas Creek to spawn. Commission biologists said there are approximately nine miles of good salmon and steelhead spawning area above the dam.

Visit Ederer Plant

Scott Smith, Jr., general manager, and John Platt, new vice-president of The Beebe Co., Portland, Ore., visited the offices and mill of the Ederer Division of The Linen Thread Co., Inc., in Chicago recently.

California Firm to Raise Oysters in Humboldt Bay

Oyster growing, which shows promise of becoming a new industry for Humboldt Bay, will be introduced there on a large scale by the Van Camp Seafoods Co. of San Pedro. The firm has made applications to the Dept. of Fish & Game and has been granted permits to raise oysters in the north bay.

Cooperating in efforts to raise oysters will be the Coast Oyster Co. of Willapa, Wash. The Van Camp Company, which is to market the product, is planning to can the oysters, employing some 300 persons.

An experimental oyster plot planted in the north basin of Humboldt Bay more than a year ago proved highly successful, yielding large-sized oysters when harvested early this Summer.

Changes in Ownership

Recent boat sales and transfers recorded by the U. S. Customs and Immigration service office in Eureka include a partial change of property on the *Andy N*, a troller. Hubert Stormes of Crescent City, who owned the boat with Robert L. Rains, has sold his half-interest to Henry M. Jones of Crescent City.

The *Star*, a small troller, has been purchased by George A. Aitken of Eureka and transferred from Portland to Eureka.

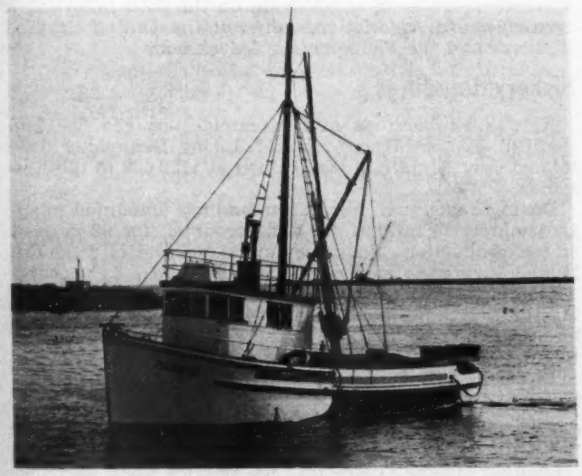
Expect Good Crab Season

As crab sent from San Francisco began appearing on Eureka markets November 17, local fishermen who remained in Eureka were preparing their boats for the opening of the season there December 15. Indications are that it will be a good one.

The season in San Francisco is expected to be brief for Eureka fishermen, who will be returning to participate in the crab season on Humboldt Bay. Plant officials estimated that nearly 70,000 lbs. of crab were received locally on the first two days of deliveries. Approximately 25 boats from this area, including ten which dock at the Eureka Small Boat Basin, were said to have gone to San Francisco for the opening of the crab season there.

Fish Receipts at San Diego

From January 1 to November 1, San Diego's fishing fleet caught 56,311 tons of seafood, or 11,000 tons more than for the same period in 1953.



The 46' long line and halibut boat "Mary C.", owned by Capt. Theodore West of Eureka, Calif. Powered with 65 hp. Caterpillar Diesel, and equipped with Apelco radiotelephone, Mustad hooks and Raytheon Fathometer.

Price Dispute

Sardine fishing out of San Pedro Harbor slowed down considerably last month after three weeks of good hauls that netted 42,500 tons. Refusal of Van Camp, Star-Kist and Pan Pacific to pay the price of $47.50 a ton agreed upon at the start of the season was responsible for the tie-up.

Gilbert Van Camp said his cannery was asking the lower tonnage price of $40 because he felt that the firm could purchase greater quantities of fish at the lower price. Eventually only Franco-Italian and Booth were receiving sardines, so boat owners drew lots to determine who would supply the fish.

John J. Real, who has been manager of the Fishermen's Cooperative Association of San Pedro, Calif. for the past five years, will leave his position early in 1955 to open law offices. He will be succeeded by Mason Case, who is resigning as manager of the Southern California Commercial Fishermen's Association.

Hits Breakwater

The 80-ft. San Pedro purse seiner *Marauder* hit the Long Beach breakwater in heavy fog on November 14 and sank after 12 crewmen were taken aboard by the *American Adventure*. The next day the crippled vessel, still submerged, was towed ashore for repairs. Owners are Capt. Tony Mihovilovich and Star-Kist.

Sardines Coming from Mexican Waters

The California State Marine Research Committee announced recently that the sudden return of sardines to California waters this season resulted from a migration of Mexican fish and was not an increased spawn. The committee, composed of representatives of industry and the Dept. of Fish & Game, pointed out that research showed a proportionate decrease in sardines off Baja, California, and that no evidence was found to support any new and large class run of this fish.

Clippers Leave for South America

San Diego tuna clippers continue to leave for South American waters to remain for periods ranging from six months to two years. Latest to leave is the 195-ton *Palomar*, Capt. Minoru Takasugi, owned by the Quaker Oats Co.

The next clipper to leave will be the *Judy S.*, operated by National Marine Terminals whose fleet fishes for Westgate-California Tuna Packing Co. There are 20 American flag vessels, virtually all of them from San Diego, landing tuna at Peruvian and Ecuadorian plants.

Plenty of Tuna

Thousands of tons of yellowfin and skipjack continued to arrive in San Diego last month from the Galapagos Islands fishing banks. The clipper *Aggressor* arrived recently, following a 64-day voyage and was followed by the *Commander*. Other vessels expected were the clippers *Kitty Hawk*, *May Queen*, *Hornet*, and *Charlene*.

On the 30th of November, the tuna clipper *Scarlet Queen*, which was recently renamed the *Explorer*, completed one of the most profitable voyages in its long career. She arrived from Peru with 580 tons of tuna valued at $174,000. Also returning with large cargoes from Latin-American waters were the clippers *Renown* and *Sun Traveler*.

Maine Sardine Pack is Of Excellent Quality

The 1954 Maine sardine packing season officially ended on November 30, and the industry's executive secretary Richard E. Reed said that the pack was of average size and would run well over two million cases. The canned product in general was of excellent quality. Only two or three of the State's 44 plants remained open until the final day. Most of the others had been shut down for several weeks due to a scarcity of fish.

Reed said that distribution of the fish supply was somewhat better than during the previous three years, yet the former large runs in Eastern Washington County waters did not develop. A large percentage of the volume was packed in the area from Portland to Jonesport.

Reed said that sales were running about normal and predicted that the industry would have no trouble disposing of its inventories during the Winter months. Packing activity started earlier than usual this year with fish being taken in late April and continued on a fairly regular scale during the following seven months.

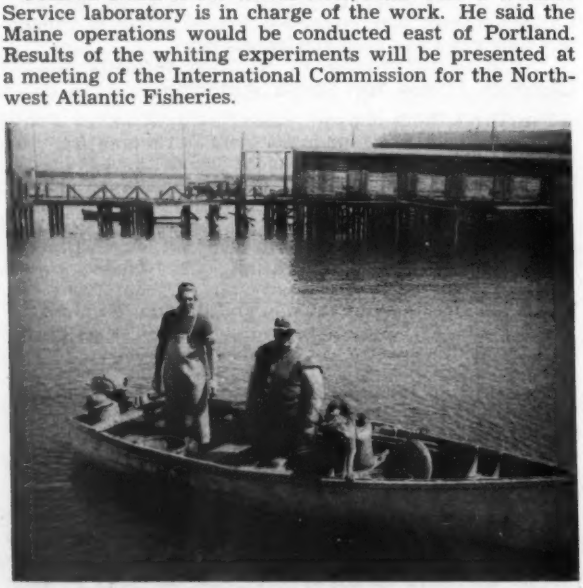
Packers were scheduled to hold their annual after-season get-together to discuss industry problems at Bangor on December 3. Activity in the industry is due to start again next April 15th when the 77th consecutive packing season will get underway.

Whiting Nets Tested

The Fish & Wildlife Service was to start experiments off the Maine coast November 18 to aid in determining the proper net mesh size which would permit unmarketable whiting to slip through. Similar studies have been conducted in Massachusetts waters since September 7, when the Service chartered the 60' Woods Hole dragger *Priscilla V.*, Capt. Jared Vincent.

A shrimp net, over the regular net, will be used to catch the smaller whiting that fall out. The percentage of fish of certain sizes which escape from the net is to be figured by the scientists. To determine if the nets are fishing properly and if the more complicated experimental attachments are functioning correctly, frogmen will be sent down to observe the net and to take motion pictures of it in action.

John R. Clark of the Woods Hole, Mass. Fish & Wildlife Service laboratory is in charge of the work. He said the Maine operations would be conducted east of Portland. Results of the whiting experiments will be presented at a meeting of the International Commission for the Northwest Atlantic Fisheries.



Bradley and George Lowell of Prospect Harbor, Me., who use a 7½ hp. Evinrude outboard motor to haul their gang of 225 lobster traps. Their boat is 15' long.

Gamage Building 73-Footer

Harvey F. Gamage, Shipbuilder, South Bristol, Me., is building a 73' x 17.6' dragger for Capt. Rudolph Matland of Fairhaven, Mass., for delivery early next year. Capt. Matland, who has been ashore for three years, plans to go back to sea when his new boat is launched.

The new dragger will replace Matland's *Joan and Ursula*, sunk during the hurricane, but which has been salvaged and towed to the Gamage yard, where some of her equipment is being removed for use on the new craft. Matland also is part owner of the *Dauntless*.

His new vessel will be similar to the *Mary Anne*, recently built by the yard, except that she will have an additional frame to allow for more space in the engine room and pilot house. There will be accommodations for 11 men, eight in the fo'c's'le, two in the cabin and one in the pilot house.

Two 12 ft. 8 in. Fiberglas lifeboats, the first of their kind to be used on fishing vessels out of New Bedford, will be carried by the new dragger. It is claimed that the lifeboats will never need paint, never crack and will not sink. Each boat will hold seven men.

The lifeboats are produced by the Beetle Boat Co., Inc., New Bedford, Mass. The firm recently was purchased by H. B. Clark of South Westport, and is operated in the former Quissett Mill in New Bedford.

More Lobstermen to Organize

Lobster fishermen from Harpswell and neighboring communities were invited to attend a meeting at Orr's Island last month to form a branch of the Maine Association of Lobster Fishermen.

Joseph Bernier, one of several Harpswell lobstermen who called the meeting, pointed out that an organization such as is planned could do much to stabilize the fluctuations in the price of lobsters. It also could aid enforcement officials and lawmakers with conservation programs.

New York Fish Smokers Resume Operations after Strike

New York City's fish smokers started working again last month after a two-week strike. A two-year contract providing a wage increase of $6 a week for 250 workers opened the way for a swift return to New York tables of smoked salmon, sturgeon, whitefish, etc.

Another strike—that of 450 salt-water fish handlers at Fulton Fish Market which was temporarily settled on November 4, was in effect again on the 30th following a breakdown of negotiations between the United Seafood Workers and the Fishmongers Association.

Fishery Landings

New York landings of commercially-caught fish and shellfish in the Marine District during September 1954 totaled over 26 million lbs., valued at $770,000 to the fishermen.

During September, menhaden landings amounted to approximately 24 million lbs. and accounted for 92 percent of the production. Scup led in the volume of food fish landed during the month followed by fluke.

Landings of all fishery products at New York ports during the first nine months of 1954 were over 124 million lbs. valued at $6 million to the fishermen. Receipts of shellfish during the first nine months of the year accounted for only 6 percent of the volume of the production, but they yielded fishermen 52 percent of the value.

Shongut Marine Named Chrysler Dealer

Shongut Marine Engine Co., 306 Merrick Road, Merrick, Long Island, has been appointed Chrysler marine engine dealer for the counties of Kings, Queens, Nassau and Suffolk in New York. George Shongut is president of the company.

Massachusetts Committee Considers Insurance Problem

At a meeting early in November, Governor Herter's labor-management committee to promote the Massachusetts fishing industry considered the question of safety at sea and its effect upon insurance rates covering injury to fishermen aboard Massachusetts vessels. Among those present were Boston attorneys and insurance experts Thomas Walsh, Francis J. White, Charles J. Curran, and Roy London, who pointed out that because of excessive claims all American insurance companies recently have discontinued writing policies to compensate injured Massachusetts trawler fishermen. They emphasized that, before U. S. firms can consider re-entering the field, far-reaching regulations will be needed.

Francis W. Sargent, director of the Massachusetts Division of Marine Fisheries and chairman of the Governor's committee, stated: "Progressive steps appear necessary both to eliminate mechanical hazards aboard our fishing vessels and insure the physical fitness of the crews before leaving port. Such action seems obvious when we realize that there is scarcely an occupation today which requires more physical stamina and fortitude than that of the trawler fisherman who must in all seasons of the year combat the hazards of the sea."

Raymond Kershaw of Gloucester testified that the Gloucester Whiting Association's self-policing safety program has substantially reduced accidents aboard its vessels with a consequent lowering of premium rates.

Shrimp Exploratory Trip

The Fish & Wildlife Service's exploratory fishing vessel *Delaware* returned to East Boston on November 21 after a 12-day exploratory fishing trip in the Gulf of Maine and Georges Bank areas.

Exploratory operations designed to evaluate the commercial possibilities for shrimp in the northern part of the Gulf of Maine were carried out. While the results indicated the existence of shrimp concentrations in the general area at this season of the year, extensive exploration utilizing smaller boats equipped with standard shrimp trawls seems warranted to determine if commercial quantities of shrimp are present.

Ask Revival of Tuna Explorations

Governor Herter's labor-management committee to promote the Massachusetts fishing industry listened Nov. 17 to differing viewpoints regarding the possibility of developing an East Coast tuna fishery, and then deferred action until its next meeting Dec. 1.

Arnold Vogl of the Riviera Packing Co., Eastport, Me., urged the committee's support of his proposal to revive the Federal project for investigation of tuna fishing prospects off New England under terms of the Saltonstall-Kennedy Act. But Raymond Kershaw of the Gloucester Whiting Association said local fishermen would be reluctant to go after tuna until an adequate price was guaranteed.

"A booming tuna industry would now be in operation in local waters," Vogl said, if sufficient funds had been available to charter a conventional tuna craft with an experienced West Coast crew.

Francis W. Sargent, chairman of the Governor's Committee and director of the Massachusetts Division of Marine Fisheries, suggested that Atlantic tuna "may well represent a potential fishery perhaps as large, or even larger, than that of the West Coast. Sargent added that the quality of Atlantic bluefin tuna when processed and canned is at least equal, if not preferable, to the West Coast variety.

Leo Linquata, president of the Gloucester Fisheries Association, recommended that the West Coast hook and line technique utilizing live bait be tested in New England waters.

The 25' lobster boat "Spray" and her owner, Albert Johnson, at the vessel's dock in Fivemile River, Rowayton, Conn. The "Spray" is powered by an 18 hp. Palmer gasoline engine.

New Bedford Sea Scallops Bring High Price

Price for sea scallops during October averaged 19 cents a pound more than in October 1953, according to figures compiled by the Fish & Wildlife Service. Fish prices were down for some species and up for others.

October landings this year showed a decrease of 1,106,300 lbs. from October 1953 totals, which was attributed to the hurricane threat and the fact that many vessels still were undergoing repairs from the first hurricane. By the close of October haddock scrod, which had been abundant during the previous six months, decreased rapidly in supply. Landings of fluke were heavier than usual.

The highest price for scallops in nearly two years was recorded in New Bedford November 10, when the seafood sold for 70.05 cents a pound at the Pier 3 auction room. The scallopers *Pelican* with 11,000 lbs. and the *William D. Eldridge* with 9,500 lbs. were the vessels selling catches. Previous price of 70 cents was in January 1953.

Twenty scallopers, the largest number to land in one day this season, unloaded 187,400 lbs. November 15. Scallop prices remained high despite the large landings.

"Flamingo" Damaged by Fire

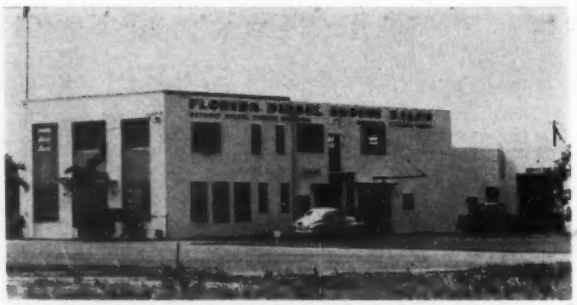
The fishing vessel *Flamingo*, Capt. Magnus Thompsen, which survived a raging engine-room fire 160 miles at sea recently, is now at D. N. Kelley & Son, Inc., Fairhaven, for repairs. Her sister ship, the *Fairhaven*, Capt. Jacob Jacobsen of North Dartmouth, stood by during the fire and then towed her in.

Must Repair Wharf

The Army has threatened to discontinue purchase of fish processed on Homers Wharf, damaged by hurricanes, unless the wharf is cleaned up and repaired. In consequence of this warning, commissioners recently made a tour of the piers with Building Superintendent Frederick R. Ripley. After visiting the wharf, the commission voted to give Ripley authority to proceed with emergency repairs.

Dragger Refloated

The fishing dragger *Clinton*, upended on the slip landing between the State and island steamship piers in New Bedford by the August 31 hurricane, has been pulled free. A lighter from the Gates Brothers Marine Service Co., Little Ferry, N. J., raised the vessel which was submerged with its bow jutting up across the landing. The *Clinton* was bought at auction by George E. Feener.



New plant of Florida Diesel Engine Sales at Miami.

North Carolina Menhaden Season Gets Underway

On the opening day of the menhaden season four boats of Beaufort By-Products Co. caught 974,000 fish. They were the *Pauline, Vivian, W. A. Mace* and *Ensign.* Two boats fished for Wallace Fisheries Co. and for Fish Meal Co. and one for Quinn Menhaden Fisheries.

It was expected the fleet would eventually number about 40 boats. The record fleet was 78 boats which fished five seasons ago. Last season the number was 54.

One reason for the drop in the fleet this year is that Phillips Fish Factory burned and is out of operation. Another is that Chesapeake boat owners are reluctant to come to North Carolina because of the many shoaled channels and the shortness of the Fall season.

The *Pauline,* operated by Beaufort By-Products Co., is a converted minesweeper which was brought from the West Coast last August. The firm has recently purchased the *Lynn Ann,* another boat from the West Coast.

Trawler "Dixie B." Sinks

The 50-ft. trawler *Dixie B.,* owned by Charles Davis of Beaufort, collided last month with the 97 ft. menhaden boat *Dewey,* owned by Wallace Fisheries, Morehead City. The *Dewey* hit the *Dixie B.* amidship with its bow, and the trawler sank in about 30 minutes.

Capt. Muse to Have New Hatteras Trawler

The Morehead City Shipbuilding Corp. has announced the sale of a new 68' Hatteras Trawler to Capt. C. M. Muse of Pamlico, veteran fisherman and shrimper. He will name his new craft the *Miss Pamlico.*

The vessel is to be delivered in January, 1955, after a 6-110 General Motors Diesel, Hathaway hoist and other equipment has been installed. Capt. Muse plans to put the *Miss Pamlico* into service immediately.

Morehead City Shipbuilding is now starting the first of a new series of 50' trawlers. The firm also has in production several pairs of purse boats which are being built on order. In addition, there are three new 68' Hatteras Trawlers in various stages of construction under the trawler shed, while two other new 68-footers are in the water ready for equipment.

To Recover Corrosion Test Samples

Equipped with mine detectors, U. S. Marines from Camp Lejeune, N. C. recently have been at the site of the International Nickel Company's sea spray corrosion test lot on the Atlantic at Kure Beach, seeking to recover thousands of valuable specimens torn by Hurricane Hazel from racks 80 ft. from the ocean and buried deep in the sand.

The lot formed part of Inco's "Kure Beach" Corrosion Testing Station, established in 1935. The station embraces facilities for studies on the behavior of materials in sea air at Kure Beach and salt water at nearby Harbor Island. Activities at this station have yielded information on how bare and coated metals, woods, plastics and cordage are able to resist effects of salt water, salt spray and sea air.

Florida to Spread Copper Sulphate in Red Tide Area

It was reported early last month that plans are being made to spread copper sulphate over a red tide area in the Gulf between Sanibel Island and Cape Romano, 30 miles south of Fort Myers, as soon as weather conditions permit. Joe Bell of the Fish & Wildlife Service explained the sulphate can be spread only when there is almost a dead calm.

It has been proved that copper sulphate will kill the tiny organism which causes red tide, and experts now want to determine the most efficient and least expensive manner of using the sulphate. For the test it is planned to drop the sulphate in bands to see if that will break the red tide up into ribbons which will disappear more quickly than usual.

Shrimper Sent to Pakistan

The 65 ft. Florida-type shrimp trawler *Islamorada* was loaded aboard a freighter in Miami recently to be delivered to the Pakistan Government at Karachi, Pakistan. It is being sent by the United States Government under the Point Four Program. The vessel was formerly owned by Bentley and Felton of Key West, and has a refrigerating system.

Shrimp Boat Sinks

The 63-ft. shrimp boat *Skipper,* owned by Tony Meabe and Clarence Glover of Tampa, developed a leak in heavy weather while heading out to the Campeche Banks last month and sank in 40 fathoms of water 150 miles southwest of Tampa. The Coast Guard, which located the trawler by helicopter, dropped an extra pump, but it was not enough to keep the stricken vessel afloat. The crew was rescued by men aboard the trawler *Hustler.*

Florida Diesel Sales Moves Office to Miami

Florida Diesel Engine Sales has announced the transfer of its main office from Jacksonville to Miami. The new office and shops are located in an area of approximately 6 acres, with 460' on the Miami River and a 240' x 78' boat slip along with an 80' marine railway.

The new plant employs a staff of over 30 persons, including E. G. Duerk, general manager; Ralph Bethea, State parts manager; and Dale Skogg, State service manager. Florida Diesel Engine Sales is a direct branch of the Detroit Diesel Engine Division of General Motors Corp.

New Shrimper Launched

Key West added another trawler to its shrimp fleet when Capt. Oscar Ramirez launched the 72 ft. *Danil.* The vessel is powered with a Caterpillar D337 Diesel with Snow-Nabstedt gear, furnished by Shelley Tractor & Equipment Co. of Key West and Miami.

Shelley Moves Key West Branch

Shelley Tractor & Equipment Co., distributors of Caterpillar Diesel engines for South Florida, have moved their Key West branch to a new and modern building at 313 Margaret Street. The Key West branch is under the supervision of Charles E. Clark.

"Oregon" Investigates Action of Nets

In cooperation with the Fish and Wildlife Service's gear research unit at Coral Gables, Fla., the Navy Bureau of Aeronautics, and the Geological Survey, the research vessel *Oregon* recently made tests on several types of equipment to determine their effectiveness as tools for the study of fishing gear. Underwater television cameras were used to observe the action of a mid-water trawl as it was towed in the Gulf Stream off Miami. Also on this cruise, the diving team from the *Oregon* made its first dives to watch shrimp nets.

Capt. Jesus (Jesse) Elizondo (left) of the 34' x 12' x 5' Corpus Christi, Texas shrimper "Mary Ella". At right, crewman Ernest Mellow dumps the catch on deck. The "Mary Ella" is powered with a 143 hp. Chrysler Royal engine, and shrimps in Corpus Christi Bay.

Texas Shrimping Fleet Gets Several Additions

Several new trawlers of the latest design have been delivered recently to owners for Texas coast shrimping. On an average, these boats are larger, have more power, and are better equipped than 1953 trawlers.

The Wilson Boatyard at Brownsville has been very active during 1954. One of their trawlers, *Maverick*, was built for Sam Snodgrass of Port Isabel. This trawler is 65 ft. x 19 ft. 2 in. It was outfitted by the Marine Department of the San Antonio Machine & Supply Co. (SAMSCO) through their branch house at Harlingen.

All metal tanks for fuel, lubricating oil and water, as well as the rigging including mast, outriggers and booms, were fabricated at the SAMSCO plant. This firm also furnished the Stroudsburg 3-drum hoist, Federal propeller and Plymouth rope.

In addition to their main plant at San Antonio and branch plants throughout South Texas, SAMSCO has a complete marine supply house at Corpus Christi.

The new trawler *Arsco*, built by the A. W. Covacevich Shipyard of Biloxi, Miss. for Mrs. C. A. Roe and Mrs. C. F. Rozzel of Rockport, is one of the latest to be commissioned and started on shrimp production. The *Arsco* is of standard design, 72 ft. wood hull, powered by a General Motors Series 6-110 marine Diesel engine, developing 205 hp. at 1600 rpm. and turning a 44 x 42 Coolidge propeller through 4.5:1 reduction gear on 3-inch Tobin bronze shaft. The engine was furnished by Kennedy Marine Engine Co. of Biloxi, Miss.

Other equipment consists of a Stroudsburg hoist, Fairbanks-Morse bilge pump, Bendix automatic pilot and depth recorder, Onan generator and Surrette batteries.

The new trawler *John O'Callaghan* was built by Diesel Engine Sales, Inc. of St. Augustine, Fla. It has joined sister vessels, *Welchman* and *Captain Irish*, of the Hardee shrimp fleet at Brownsville, Texas.

This wood hull boat is 67 ft. by 18 ft. 6 in. by 6 ft. 6 in., and is powered by a Caterpillar D13000 marine Diesel engine, delivering 120 hp. to a 48 x 44 Columbian propeller through a Snow-Nabstedt 3:1 reduction gear and 3" Tobin bronze shaft.

Other equipment includes Onan 32-volt generator, Goulds 1¼" bilge pump, an engine-driven Barnes standby bilge pump, 515½T Stroudsburg hoist and Columbian rope.

Seafood Production Heavy

Seafood production was heavy along the western Gulf coast and into the deep south Gulf, especially during the last week in October and the first week in November. Trawlers were fast making up time lost to tropical disturbances in October.

Bay shrimping paid off well for the first two weeks in November from Corpus Christi to Galveston, with good catches of white shrimp above size for this time of year. White shrimp catches made up 10 per cent of the production on the upper coast.

Brown-grooved shrimp accounted for 90 per cent of the middle and upper coast catch with 100 per cent brownies on the lower coast.

The Galveston area, including Sabine and Freeport, had 7,055 barrels of shrimp for the 30-day period, October 20 to November 20. Matagorda region, including Port Lavaca, Palacios, Port O'Connor and Seadrift, reported 2,700 barrels with 57 per cent white and remainder brown-grooved.

Aransas Pass, Corpus Christi, Rockport and Port Aransas area landed 16,000 barrels, 17 per cent white, remainder brown-grooved.

Port Isabel reported 13,100 barrels for the period; all were brown-grooved shrimp from the southwest Gulf. Brownsville had 20,100 barrels of brown-grooved shrimp taken in waters off Mexico.

Total reported shrimp landings for the period were 59,000 barrels, a gain of 3,900 barrels over the previous 30-day period, when 55,100 barrels were reported.

Edible finfish production was very good. Bay fish, such as speckled sea trout, red drum and croakers were plentiful. Red drum in increased quantities came through the passes from the Gulf into the bays. Black drum, whiting and gafftops were in good supply. More flounders showed up than at any time in the last four years .

Red snappers, warsaw and groupers were to be had in the Gulf when weather permitted. A total of 297,300 lbs. were reported landed.

Oyster production was off, due principally to the closing of Galveston Bay to oyster dredges. Tongs only are being permitted. Production of oysters dropped to 203 barrels.

The season on oysters will not start on the middle coast until the middle of December when many small bay trawlers will re-rig for oyster dredging. Oyster production along the south coast is not regularly carried on, being commercially unprofitable.

Large Trawls Prohibited in Bays

Howard Dodgen, executive secretary of the Texas Game & Fish Commission, has called attention of shrimp fishermen to the law now in effect, closing all bays and inland waters to large trawls for taking shrimp during certain months. Effective December 15, all inland salt waters were closed to trawls more than 10 ft. wide at the mouth and 25 ft. long, and will remain closed until March 1, 1955.

William T. Estes

William Taylor Estes, 62, of Brownsville, president of the Rio Grande Shrimpers' Assoc. died last month of injuries received in a head-on auto collision. Mr. Estes organized the Shrimpers' Association shortly after he moved to Brownsville.

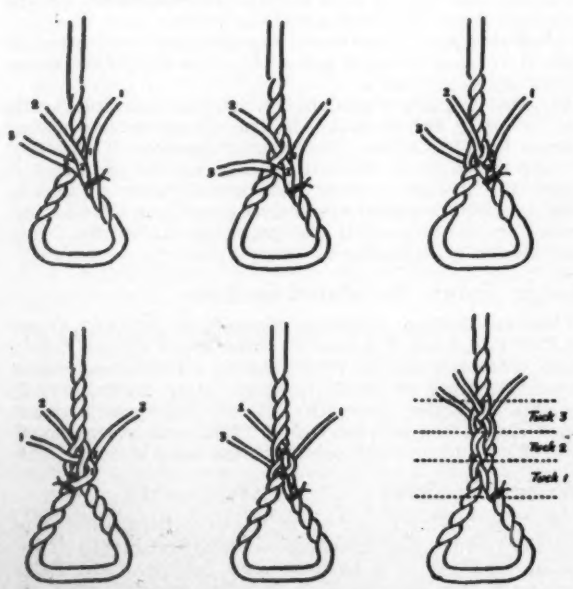
Splicing an eye about a thimble to provide protection from wear when the rope is in use.

How to Make An Eye Splice in Rope

One of the most "handy things to know" in and around boats and in boatyards is how to splice rope. Splicing not only produces a permanent junction, but according to the New Bedford Cordage Co., also provides a stronger connection than any knot.

A good splice is not hard to make. For example, to make an eye splice, as is shown in the accompanying illustrations, all that is required is to:

1. "Whip" or bind the end of each strand of rope with string or twine to prevent unraveling.
2. "Unlay" or unwind the rope about six "turns", or the length of six diameters. Some riggers whip rope at this point.
3. Twist the rope open at the point where the unlaid strands are to be tucked in.
4. At the untwisted point, drape one of the unlaid strands on either side of the rope and place one in the middle along the rope.
5. Insert a fid, or tapered wooden pin, under the top strand where the rope was untwisted. Hold open with thumb and forefinger and withdraw fid.
6. Pass the end of the unlaid center strand through the opened strand. Pull through and tighten.
7. Open the strand to the left and tuck in left-hand unlaid strand. Open the strand to the right and tuck in right-hand unlaid strand.



Drawing showing steps in making an eye splice in rope.

8. Repeat (6) and (7) a second time.
9. Repeat a third time. For a tapered splice, after finishing the second tuck, cut about half the yarns from the unlaid strands and make the third tuck with the halved strands. Cut the strands in half again and make a fourth tuck. Trim off ends.

As shown in the illustration in opposite column, an eye may be spliced about a thimble to provide protection from wear when the rope is in use.

Further information on splicing, data on knots, rules for rope care, safe sling loads and safe tackle loadings is available from the New Bedford Cordage Co., New Bedford, Mass. Ask for the technical article reprint.

Proper Icing of Fish

(Continued from page 16)

fish. The cause of the temperatures below 32°F. being reached in fish iced with ordinary water ice is not fully known. It is probable, however, that the sea water with which the fish are washed, plus a certain amount of body fluids, when in contact with the ice, cause a depression of the melting point of the ice.

Effect of Temporary Rises in Temperature

Although the effects of storage temperature on keeping quality are well established, little is known of the effect of a temporary warming up of the fish. It is a general experience that fish should be iced as soon as possible after catching, and it has been found that storage without ice on the deck for a few hours, especially in sunlight, may increase the temperature of the fish considerably and consequently shorten the keeping quality in ice by several days.

Little seems to be known of the effect on bacterial growth and keeping quality of temporary rises in the temperature of the fish during unloading, auctioning, repacking and other handling, where the ice is removed from the fish. Experiments have shown, however, that fish exposed to temperatures of about 50°F. for from 8 to 13 hours were, after two days' further storage in ice, notably poorer than the continuously iced controls. The keeping quality was, in fact, lower by about 1 to 3 days, as compared with the controls.

In other food industries the raw material is successfully converted into the final product, and perishable goods distributed before the termination of the lag phase of the contaminating bacteria. This is not always possible with fish, partly because they contain spoilage bacteria which are able to grow at unusually low temperatures. But it might well be worthwhile to find out the effect of the more or less inevitable temporary de-icing of fish, on (a) the temperature of the fish, (b) the bacterial growth, and (c) the subsequent keeping quality.

Washing and Handling

Careful gutting and washing and cautious handling combined with clean conditions on board are reported to enhance the keeping quality of fish, but few experiments have been recorded showing the relative importance of these various factors.

It is claimed that fish should be washed before storage in the hold, and that washing in unclean water may contaminate the fish to such an extent that the keeping quality is lowered. Experiments (cod and haddock), however, did not show any adverse effect of not washing or of washing in unclean water. Rough handling of fish (cod and haddock) on the deck did not impair the subsequent keeping quality. "Rough" handling by storing in thick layers does not always lower the keeping quality, but may produce large weight losses.

It has been shown that the keeping quality (codfish) may be prolonged by about 30 percent by thorough cleaning of all surfaces with which the fish come in contact. Experiments with herring stored for 40 hours showed no

Virginia Oystermen Making Good Hauls in Rappahannock

A survey of the public oyster grounds of the Rappahannock River has been completed by Dr. J. D. Andrews and Dexter Haven of the Virginia Fisheries Laboratory at Gloucester Point. The oyster grounds appear to be in the best shape since 1948, and good hauls are being made at all levels of the river. Most of the oysters are quite fat.

The prospect for a good take in future years is greatly improved. The set of young oysters on the public rocks from Urbanna to Morattico is by far the best since 1943. The best set in the upper river is found at Rogue's Hole and Bluff Rock. In the lower river a preliminary estimate indicates that the strike is lighter than usual, but some set is always obtained in this area.

The biologists saw little evidence of damage done by Hurricane Hazel except perhaps along the east shore where in places unusual numbers of dead oysters were found in shallow waters.

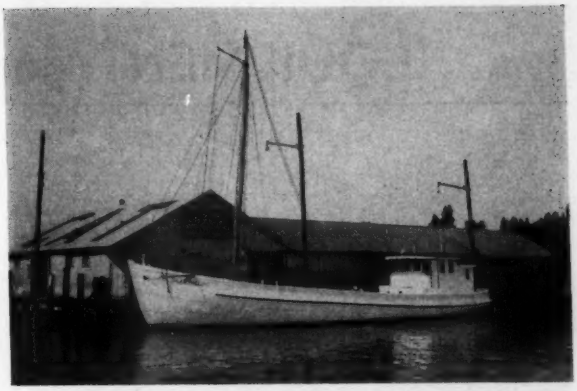
Dr. Andrews speculates that the hurricane did one good thing for the oysters in the river. In previous years heavy growths of sponge, algae and grasses in the lower river have made it almost impossible to sample some beds with a light dredge. This year no such difficulty was encountered. The bottom seems to be unusually clean, and that should be advantageous to the growth of oysters.

Menhaden Operators Meet

The fifty-fourth annual meeting of the Virginia Fishermen's Association was held at Old Point Comfort November 8 and 9. Among the speakers was Charles M. Lankford, State Commissioner of Fisheries, who noted that 850 Virginians are engaged in menhaden fishing in the State, and another 1,000 Virginians earn their livelihoods with this non-food species outside the State.

Regarding the effect of the menhaden industry on Virginia's economy, Lankford said that the worth of the business is $3,000,000, and that for five months' work last year, the average salary for those engaged in menhaden fishing was $3,500. A five-member panel participated in a discussion on "Maintaining Quality of Menhaden on Board Vessels."

At the annual executive meeting of the Association, new officers were elected as follows: president, T. H. Jett of The Menhaden Co., Reedville, Va.; vice-president, G. H. McNeal of McNeal Co. and the McNeal-Edwards Co., Reedville, Va.; secretary-treasurer, Walter A. Mercer, Virginia manager for the J. Howard Smith interests.



New Caterpillar marine engine service pier at Hampton, Va., operating under the name of Virginia Marine Service Co. Tied up at the dock is the "Lula M. Phillips."

Hampton Roads Area Landings

During the month of November, fish production in the Hampton Roads area was considerably heavier than in either the previous month or November, 1953. The catch for this November amounted to 1,818,800 lbs., which was nearly a million lbs. more than in October, and over a half million lbs. above the November, 1953 yield. With the onset of cold weather, pound net landings during November dwindled to only 66,500 lbs.

Scup took the lead among the varieties, with a catch of 1,219,000 lbs., or more than double that of the previous month. Next was fluke, with 269,900 lbs.

"Cavalier" Gets New Engine

The fishing boat *Cavalier*, owned by H. F. Lewis Co. of Norfolk, Virginia, has been powered with a new Model WM-1197 Wolverine-Waukesha Diesel, rated 220 hp. at 1600 rpm., and equipped with Snow-Nabstedt 3:1 reduction gear, Twin Disc forward power take-off and Ross heat exchanger. The boat is used for oyster dredging and dragging.

New Marine Engine Service Pier at Hampton

Virginia Tractor Co., Inc. has set up a marine engine service pier in Old Phoebus Harbor in what is now the City of Hampton. These facilities are about 1½ miles off the main channel into Hampton Roads, and can accommodate vessels up to 14' draft. The activity operates under the name of Virginia Marine Service Co., and is staffed by Landon Lovelace, sales engineer; "Moose" Onorati, who is in charge of the pier, and Emmett DeRusha, who handles the field service truck.

On the pier is a complete repair shop primarily designed to service Caterpillar Diesel engines, and for that purpose an emergency supply of parts is kept there. However, the firm has been doing a considerable amount of work on other makes of engines at the request of owners.

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difference between sterilized metal boxes and new or well-washed wooden boxes. Disinfection of boxes has been recommended, but it does not seem to be necessary to do more than wash and brush the boxes carefully.

A number of papers have been published on the effect and the use of different disinfectants. Chlorine solutions seem to be the most preferred. Calcium hypochlorite is an efficient deodorant for holds in the fishing boats.

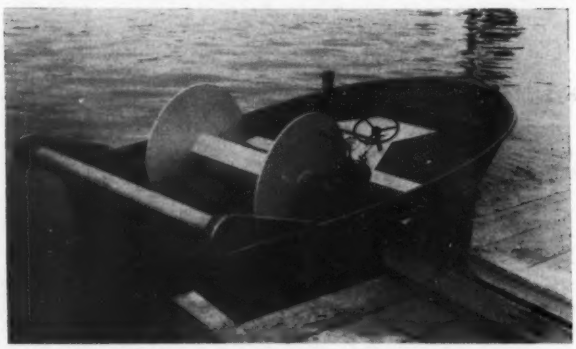
It is perhaps surprising that disinfection of equipment, etc., which is so commonly used where other foodstuffs (notably milk) are handled, does not improve the keeping quality of fish; but it must be borne in mind that the fish themselves contain more bacteria capable of growing at low temperatures than any other foodstuffs, and that a tenfold rise in the initial bacterial count of fish (codfish fillets) may reduce the keeping quality at 32°F. by only two days or so.

Contaminated Ice

One potential source of contamination, which apparently has not been much examined, is the ice. It is known that ice made from comparatively clean water contains only a few bacteria after cold storage under clean conditions, because spoilage bacteria die out quickly, especially at low temperatures. There are observations, however, which indicate that ice may be heavily contaminated during handling and storage, especially when it is stored for long periods in the hold and, for instance, when new ice is piled on top of the old. Beneficial effects from ice made from chlorinated water have been reported.

It may be concluded from the available literature that, in spite of many valuable contributions in this field, more research is needed to find the relative effect of each of the various factors which influence the keeping quality of fish. Such research could be carried out by varying a single factor at a time, and otherwise along similar lines as hitherto. All other factors must, of course, be kept constant. To get a complete picture, it would be necessary to investigate the fishing and handling of different species of fish with different gears and in different seasons.

EQUIPMENT and SUPPLY NEWS



First pilot model "Steelskif", built by Marine Construction and Design Co., Seattle, Wash., and available in lengths of 16, 18 or 19' with 8' beam. Developed for use as a purse seiner's skiff, the model shown above was powered by a 110 hp. Nordberg Bullet marine engine with 2.5:1 reduction and 18 x 17 Michigan wheel, and was fitted out complete with a reel for use with a lead.

New Marco "Steelskif" for Purse Seiners

The new "Steelskif" of Marine Construction and Design Co., Seattle, Wash., is the second stock steel boat to be added to the firm's line in the last few months. It follows closely behind Marco's 16' x 8' pond boat, and was developed for use as a purse seiner's skiff. The craft is available in three models—16', 18' and 19' long by 8' beam. The hull is built of 10-gauge steel alloy known as Corten, which is claimed to have nearly twice the strength of mild steel and superior corrosion-resistant properties.

A new system of construction is being used for the "Steelskif" which takes advantage of the welding shrinkage to produce a smooth-stressed hull. With a 100 hp. engine the "Steelskif" will achieve planing speeds if not loaded down too heavily. The seaworthy hull is a non-pounding type with V-bottom construction.

The "Steelskif" will be available in various stages of completion from bare hull to the finished skiff, with either power roll or reel. The new craft compares favorably in weight with most of the wood skiffs in use, and is claimed to be practically indestructible, it being possible to sideswipe the dock at full speed without any damage. The skiffs are sandblasted and painted using a system which insures a minimum of maintenance.

Edo Introduces Low-Cost Loran

Development of a new direct-reading Loran navigation instrument has been announced by the Edo Corporation of College Point, Long Island, New York. At its relatively low cost, the Edo development makes it possible for Loran to be installed on many types of commercial vessels. Fishermen use Loran to accurately find good fishing grounds.

New Edo Loran.

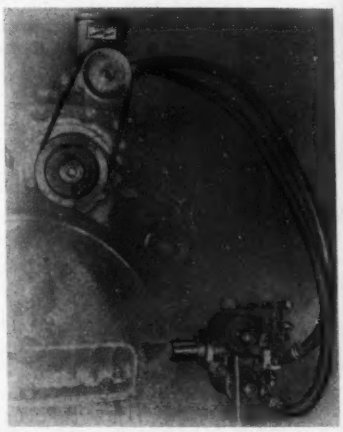
The new Edo Loran is a single-unit equipment with only 26 tubes, as compared to more than twice that many in some older-type lorans. This has resulted in a much lighter device. The Edo Loran features easy tube accessibility and other simplified maintenance features, in addition to ease of installation.

The new device, including a mounting yoke, weighs a total of 90 lbs. and is contained in a cast aluminum case measuring 14 5/8" by 15 1/16" by 17 1/16". It is equipped with an adjustable mounting bracket for installation on table, bulkhead, shelf or overhead. The Loran is completely self-contained and uses the ship's regular radiotelephone antenna. Power requirements are low—150 watts at 115 volts, 60 cps.

It is claimed that the operation of the Edo Loran requires no training of any kind. Time difference figures from which lines of position are determined are read directly from the face of the equipment. No computations are required and no tables need be consulted. The navigator can take readings on two stations in a matter of seconds.

Capco-matic Hydraulic Gear Shifter

The new Capco-matic hydraulic reverse gear shifter offers easy, fingertip control for commercial boats. The shifter can be used with engines of from 50 to 300 hp., and is claimed to provide greater maneuverability and more efficient operation in general. It is possible to operate the Capco-matic shifting unit from more than one station, as well as to utilize the combination clutch and throttle controls.



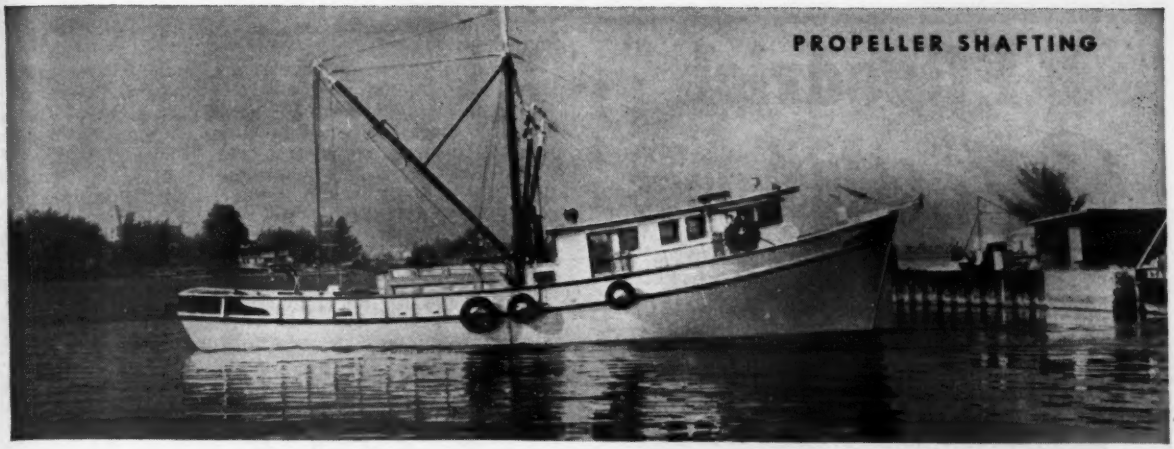
Typical mounting of Capco-matic hydraulic reverse gear shifter on General Motors 6-71 Diesel with Twin Disc clutch.

The new shifter is comprised of two units—the shifter device itself and a pressure pump. The shifter unit is keyed to the transmission cross shaft and anchored or bracketed to the transmission case. It is built of corrosion resistant materials including brass, stainless steel and anodized aluminum. The hydraulic pressure pump is either mounted by bracket to the fly wheel end of the engine or mounted directly on the mounting pad of the timing gear case, depending on make of engine and transmission, and whether pulley-driven or directly geared.

The Capco-matic shifter can be readily installed on any type or make of gasoline or Diesel engine, and installation kits are now being made up by engine manufacturers for their own particular equipment. For information regarding kits available, boat owners may contact the engine manufacturers or Cleveland Aero Products, Inc., Marine Division, 113 St. Clair Avenue N.E., Cleveland 14, Ohio. A bulletin describing the new hydraulic shifter also may be obtained from Cleveland Aero Products.

New Trevarno Glass Boat Fabrics

Two new Trevarno glass boat fabrics are available from The Coast Manufacturing & Supply Co., Box 71N, Livermore, Calif., and a catalog on them can be obtained on request. One is a heavyweight fabric for use on larger, planked hull boats, or those subject to extra rough service (beach landings, etc.). The other new fabric is a light-



It's Tobin Bronze Shafting for this new 72-foot shrimp trawler!

This is the "Virginia Bradley," newest member of the Cam Tam Shrimp Company's fishing fleet. She was built by A. W. Covacevich Shipyard, Biloxi, Miss. Because her propeller shaft is Tobin Bronze* her owners are sure of dependable power delivery — in fair weather or foul.

Tobin Bronze resists sea-water corrosion. It is strong . . . yet "gives" enough under sudden jars to lessen the chance of damage to bearings and housings. This shafting is turned for soundness and specially straightened. That keeps vibration down.

To make sure it's Tobin Bronze, look for this propeller insigne. And for higher-speed, heavier-duty work, specify Tempaloy* Shafting. For corrosion-resistant fastenings and fittings, specify Everdur* Copper-Silicon Alloys. *The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.*

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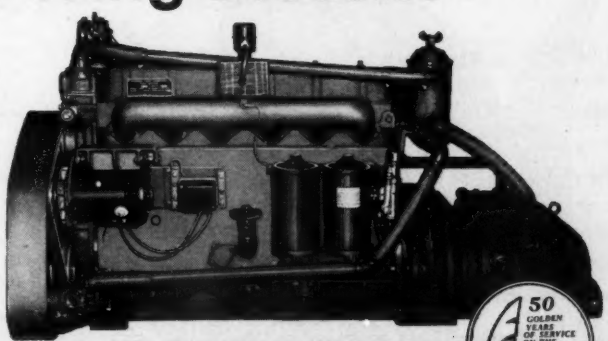

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weight one for use on smaller boats, and for decks and cabin tops.

Trevarno glass boat fabrics are made from Fiberglas yarns, and treated with Dupont "chrome" finish. This finish imparts permanent water repellency, greater strength, more resiliency for shaping and crystal clear lamination (wood shows through).

The new heavy-duty fabric has been called Trevarno Boat "B", and still retains the excellent shaping qualities of the lighter Trevarno fabrics. Boat "B" fabric offers two advantages to the large boat owner: one, it saves time by requiring only one application of cloth rather than several layers of lighter material; and two, it costs less than applying the lighter layers.

The lightweight fabric is called Trevarno Boat "C". It was especially developed for use on smaller boats, particularly those under 16'. It is a lower cost fabric, yet supplies adequate strength for small plywood and other lighter boats. It smooths out easily on flat or curved surfaces, and is ideal for decks and cabin tops.

New Wilfrid White Product Research Boat

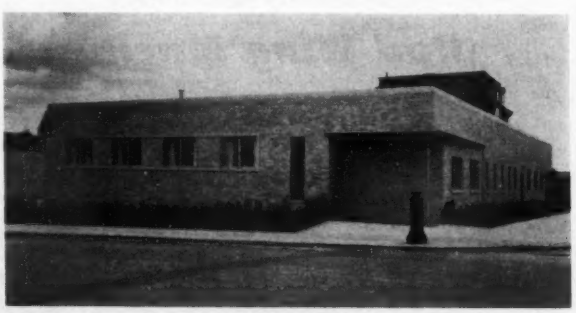
Wilfrid O. White & Sons, Inc. of Boston, Mass. have commissioned a new product research boat, to replace their 37' *Whitecap* which was lost in Hurricane Carol. The new craft, which also bears the name *Whitecap*, was the former 45' twin screw *Dawn*. She is based at the Boston Yacht Club, South Boston, and will be used for testing the various types of navigating equipment developed and manufactured by White.

Enterprise Moves New York, Boston Branches

In keeping with its major expansion program, Enterprise Engine & Machinery Co., subsidiary of General Metals Corp., has moved two more of its branch offices to larger and more modern quarters. Both the New York and Boston headquarters have been moved. The New York move consolidated offices and warehouse at 37-02 48th Ave., Long Island City, New York. Hugh H. Goodwin is branch manager.

Hugh H. Goodwin, branch manager for Enterprise at Long Island City, N. Y.

The Boston move completed at the same time consolidated offices and warehouse at 206 Western Ave., Boston, Mass. J. E. Barthmaier is branch manager. Better facilities, more space and more adequate storage capacities are available at both new locations.

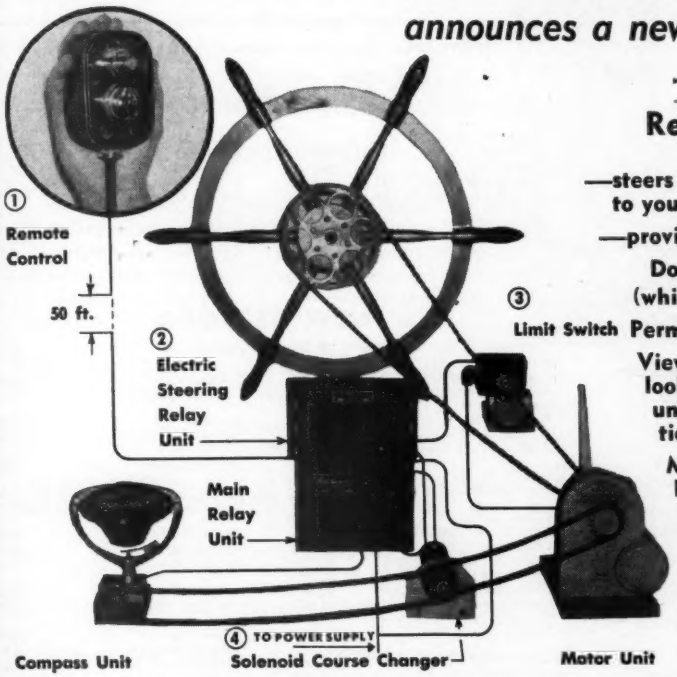


New office of Enterprise Engine & Machinery Co. at Long Island City, N. Y.

Wood Freeman, Manufacturer of

METAL MARINE PILOT

announces a new "MODEL 63"



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—provides, in addition to the automatic feature Dodging — Maneuvering — Circling (while "remembering" automatic course).

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View shows Pilot and Model 63 installed, looking aft thru front of pilot house. (Relay units are turned around to show wire locations.)

Model 63 assembly includes waterproof Remote Control Switch with 50-ft. cord; Relay Unit; Limit Switch; Solenoid Course Changer. Price $165.00 f.o.b. factory.

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Gulf States Commission

(Continued from page 17)

C. E. Peterson of the Fish & Wildlife Service covered that part of the Branch of Commercial Fisheries projects involving the collection of shrimp statistics incidental to the initial shrimp investigations program. To handle this $60,000 project, he said, statistical representatives would be placed at several ports, with New Orleans being the headquarters and Charles Lyles serving as director of the project. Such data as catch and value by individual trips of each vessel, by species, port of landing, and area of capture, as well as the amount of fishing effort expended, are included in the work plan.

It was explained by P. E. Thompson of the Fish & Wildlife Service that the $80,000 set aside for shrimp investigations was in addition to funds allocated for the operation of the Galveston laboratory during the current year. He said the shrimp populations of the Gulf will be studied to determine the effects of environmental changes on shrimp production, in order to provide information necessary to maintain the yield of these shellfish.

Shrimp and Menhaden Movies Shown

The new sound and color movie "Shrimp Please" was shown, as was "The Story of Menhaden". Use of the purse seine in the menhaden fishery was discussed, and W. S. Werlla of Louisiana gave a summary of the growth in production and value of the menhaden fishery on the Gulf to its present position of first in pounds harvested and second in dollar value to the fishermen.

The consensus of those who participated in the discussion concerning the use of purse seines in the menhaden fishery was that the taking of these fish by such gear is not to the detriment of other fishes or the bottoms over which the net is set. With regard to the use of the otter trawl in the trash fishery, it was brought out that the gear had apparently done no injury to other fisheries.

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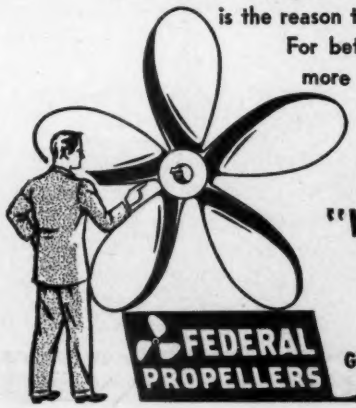

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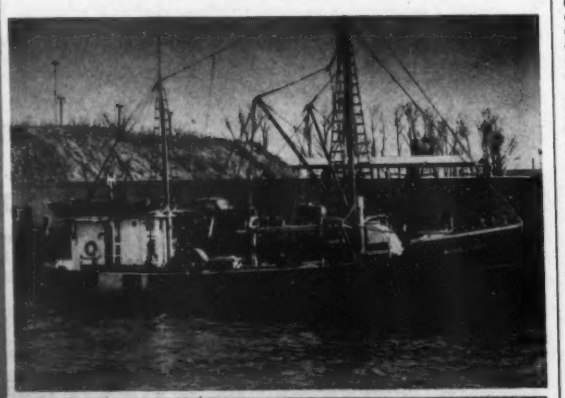
136 Day St., Newington, Conn.

Pete Austenberg, skipper of the "Major J. Casey" is sure of his power—it's a Cat D364 Marine Engine. The boat is owned by Phillip Reinhardt, L. I., N. Y.



BOAT CATCHES

For Month of November

Hailing fares. Figure after name indicates number of trips.

ROCKLAND

Alton A. (1)	4,000	Helen Mae II (1)	5,000
Calm (2)	620,000	Little Growler (2)	33,000
Crest (1)	300,000	Ocean (2)	315,000
Dorothy & Betty II (2)	23,000	Rhode Island (1)	6,000
Dorothy & Ethel II (1)	5,700	Squall (2)	618,000
Drift (3)	500,500	Storm (2)	255,000
Elin B. (2)	16,000	Tide (2)	400,000
Flow (1)	6,000	Wave (2)	422,500

NEW BEDFORD

Adventurer (3)	61,700	Invader (2)	55,000
Anastasia E. (1)	18,500		
Annie Louise (3)	23,200	Jacintha (2)	85,500
Annie M. Jackson (3)	23,100	Julia DaCruz (2)	11,700
Antonina (1)	11,800		
Arnold (3)	24,200	Katie D. (3)	145,000
Arthur L. (2)	33,800	Kelbarsam (2)	7,100
Austin W. (2)	61,000		
		Lorine III (1)	7,500
Baracuda (1)	6,100		
Barbara M. (1)	6,500	Mary Tapper (2)	43,000
		Molly & Jane (2)	37,500
Caracara (2)	62,400		
Carl Henry (2)	70,500	Nautilus (2)	73,400
Catnerine T. (1)	30,500	Noreen (2)	88,000
Chas. E. Beckman (4)	46,300	North Cape (1)	32,500
Charlotte G. (3)	35,800		
Christine & Dan (2)	35,500	Pauline H. (3)	148,900
Christina J. (3)	64,000	Phyllis J. (3)	31,700
Clara C. (1)	6,200		
Connie F. (1)	7,500	Roann (2)	21,500
		Roberta Ann (2)	9,200
Dauntless (3)	44,800	Rosemarie V. (3)	24,500
Driftwood (1)	3,600		
		St. Ann (3)	98,000
Ebenezer (1)	4,000	Shannon (3)	33,800
Elva & Estelle (4)	79,500	Solveig J. (3)	83,000
Elva L. Beal (2)	7,500	Sonya (2)	10,300
Eugene & Rose (2)	33,900	Stanley B. Butler (3)	168,500
		Susie O. Carver (4)	49,700
Falcon (1)	40,000		
Felicia (3)	152,800	Teresa & Jean (2)	86,000
		Two Brothers (4)	28,100
Gertrude D. (1)	22,800		
Gannet (2)	89,000	Venture 1st (4)	130,800
Gladys & Mary (2)	77,700	Victor Johnson (4)	60,000
Growler (2)	70,100	Viking (2)	94,000
Hope II (2)	27,900	Whaler (3)	146,500
Huntington Sanford (1)	5,000	Winifred M. (3)	25,300

Scallop Landings (Lbs.)

Agda (1)	4,000	Kingfisher (1)	11,000
Aloha (3)	31,500		
Alpar (1)	10,000	Lauren Fay (2)	22,000
Amelia (2)	22,000	Linda & Warren (1)	3,600
		Linus S. Eldridge (1)	11,000
Babe Sears (1)	11,000	Louise (2)	22,000
Barbara (1)	1,000	Lubenray (1)	9,500
Bobby & Harvey (2)	14,000		
Brant (1)	10,500	Malene & Marie (2)	22,000
Bright Star (2)	22,000	Maridor (1)	8,500
		Marmax (2)	16,700
Camden (1)	5,500	Mary Anne (2)	21,000
Cap'n Bill (1)	3,600	Mary E. D'Eon (2)	13,500
Carol & Estelle (3)	20,200	Mary J. Hayes (2)	22,000
Carolyn & Priscilla (1)	10,500	Monte Carlo (2)	22,000
Catherine & Mary (2)	22,000	Moonlight (2)	22,000
Charles S. Ashley (1)	10,600	Muskegon (3)	19,800
Dartmouth (2)	22,000	Nancy Jane (2)	20,100
Debbie & Jo-Ann (2)	22,000	New Bedford (1)	10,500
Doris Gertrude (2)	17,000	Newfoundland (2)	21,500
Dorothy & Mary (1)	8,000		
		Pearl Harbor (2)	21,100
Eleanor & Elsie (2)	20,500	Pelican (2)	22,000
Elizabeth N. (1)	8,100	Porpoise (2)	22,000
Empress (2)	20,200		
Ethel C. (1)	10,000	Richard Lance (1)	10,000
Eunice-Lilian (2)	22,000	Ruth Moses (2)	22,000
Fairhaven (2)	11,900	Sea Hawk (1)	3,300
Flamingo (1)	11,000	Sea Ranger (2)	22,000
Friendship (1)	8,500	Smilyn (1)	3,700
Gambler (1)	3,000	Ursula M. Norton (2)	22,000
Ida K. (1)	11,000	Vivian Fay (1)	10,000
Janet & Jean (1)	9,300	Wamsutta (1)	10,000
Jerry & Jimmy (2)	20,000	Wm. D. Eldridge (1)	9,500
John G. Murley (1)	9,300	Wm. H. Killigrew (2)	20,100
Josephine & Mary (1)	10,000		

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Mechanical Equipment Co., 861 Carondelet, New Orleans, La. Shrimp Trawler Lady Phyllis equipped with S-N 3.96:1 Gears.

• DETROIT, MICHIGAN • JACKSONVILLE, MIAMI, FLORIDA • PORTLAND, OREGON • HOUSTON, TEXAS •

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BOSTON

Acme (6)	46,600	Mary & Joan (2)	110,600
Addie Mae (5)	29,600	Michael G. (5)	32,400
Admiral (1)	27,000	Michigan (3)	290,500
Agatha (3)	85,300	Mother Frances (3)	108,200
Agatha & Patricia (4)	81,700		
Alphonso (5)	14,600	Nancy B. (3)	37,900
Angie & Florence (4)	55,700	Nautilus (1)	59,500
Arlington (3)	253,000	Neptune (2)	189,200
Atlantic (2)	117,000	Notre Dame (4)	94,300
Ave Marie (2)	87,900		
		Ocean Clipper (1)	28,200
Baby Rose (3)	141,600	Ocean Wave (2)	64,500
Bay (2)	108,800	Ohio (3)	168,200
Bonnie (2)	170,500	Olympia (4)	71,500
Bonnie Billow (3)	213,600	Olympia La Rosa (2)	51,700
Bonnie Breaker (3)	221,700		
Bonnie Breeze (2)	127,500	Pam Ann (2)	104,800
Bonnie Lou (1)	46,600	Patty Jean (2)	211,500
Brighton (2)	114,500	Phantom (3)	359,500
Buzz & Billy (2)	60,000	Philip & Grace (1)	53,500
		Plymouth (3)	194,500
Cambridge (2)	155,500	Princess (4)	27,600
Carmela Maria (5)	45,800		
Comet (2)	61,500	Racer (2)	202,000
		Raymonde (4)	200,700
Dolphin (3)	91,100	Red Jacket (2)	277,000
Doris F. Amero (2)	41,600	Roma (6)	21,000
		Rosa B. (2)	144,000
Edith L. Boudreau (2)	76,900	Rosalie D. Morse (3)	239,200
Elizabeth B. (2)	110,500	Rose Mary (4)	83,500
Evelina M. Goulart (2)	78,600	Rosie (6)	76,100
		Rush (2)	140,000
Flying Cloud (2)	191,700		
		Sacred Heart (1)	6,000
Geraldine & Phyllis (3)	140,800	St. Peter II (3)	161,200
		St. Victoria (3)	121,300
Hazel B. (1)	37,500	San Calogero (6)	37,500
		Santa Maria (4)	83,800
Jane B. (2)	97,000	Santa Rita (1)	11,900
J. B. Junior (2)	137,500	Sebastiana C. (4)	95,500
J. B. Junior II (2)	8,700	Sherry & Scott (4)	48,100
Jennie & Lucia (4)	113,400	Sunlight (1)	104,000
Joe D'Ambrosio (2)	5,500	Swallow (1)	50,500
Josephine P. II (3)	130,600		
		Texas (3)	166,100
Lady of Good Voyage (2)	63,400	Thomas D. (3)	115,500
Leonard & Nancy (3)	124,900	Thomas Whalen (3)	139,800
Liberty Belle (1)	11,900	Triton (2)	129,200
Magellan (4)	57,700	Villanova (3)	94,600
Maine (2)	158,100		
Malolo (2)	107,400	Weymouth (2)	103,000
Manuel F. Roderick (3)	147,600	Wm. J. O'Brien (3)	234,000
Maria Del. S. (5)	24,200	Winchester (3)	286,700
Mary & Jennie (4)	22,400	Wisconsin (3)	379,200

STONINGTON, CONN.

America (4)	8,400	Lisboa (9)	9,500
Averio (5)	6,200	Little Chief (11)	18,400
Bette Ann (13)	13,300	Marise (13)	23,400
Carl J. (10)	18,300	Mary H. (6)	7,900
Carol & Dennis (1)	1,300	Old Mystic (12)	21,900
Carolyn & Gary (13)	18,000	Our Gang (1)	1,400
Connie M. (12)	17,400	Rita (6)	11,100
Fairweather (13)	30,400	Russell S. (3)	13,600
Five Sisters (4)	4,200	Theresa (3)	16,300
Irene & Walter (12)	20,300	William B. (13)	31,800
Jane Dore (13)	13,100		

PORTLAND

Admiral (1)	1,500	Ocean Life (1)	390,000
Agnes & Elizabeth (3)	66,000		
Alice M. Doughty II (4)	52,500	Pocahontas (1)	31,000
Andarte (2)	92,000	Polaris (1)	50,000
Araho (2)	115,000		
		Quincy (1)	150,000
Courier (1)	130,000		
Crest (1)	280,000	St. George (2)	360,000
		Sea King (2)	23,000
Elinor & Jean (2)	37,500	Silver Bay (1)	170,000
Ethelina (2)	29,000		
		Theresa R. (2)	69,000
Gulf Stream (1)	200,000		
		Vagabond (2)	94,000
Kennebec (4)	55,000	Vandal (3)	62,000
M. C. Ballard (3)	165,000	Wawenock (2)	495,000
Medan (2)	480,000	Winthrop (1)	50,000

Scallop Landings (Lbs.)

Adele K. (2)	13,558	Pocahontas (1)	11,000
Mary & Julia (1)	10,000		

WOODS HOLE

Arnold (1)	6,200	Madeline (1)	3,800
Cap'n Bill II (1)	19,300	Noah A. (2)	8,000
Eugene H. (2)	15,500	Sam Cahoon (1)	1,600
Kelbarsam (1)	4,400	Three Bells (1)	5,200

Scallop Landings (Lbs.)

Beatrice & Ida (1)	1,961	Dorothy & Mary (1)	3,327

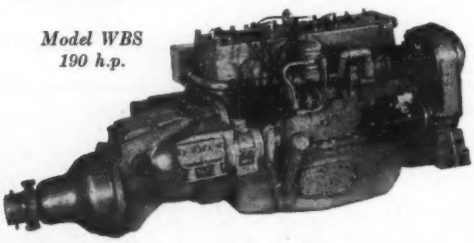
Veteran fishing captain Frank Lomas, owner of Sea Comber II, *states:*

"Can't beat CHRIS-CRAFT ENGINES for fast trips or day-long trolling!"

Frank Lomas

"Three years ago, I purchased a pair of Chris-Craft Marine Engines for my new 40-ft. charter boat, *Sea Comber II,*" writes Captain Frank Lomas, well-known sportfishing skipper of West Palm Beach, Fla. "In my 27 years at fishing and charter boating, I have never had engines that have given me the satisfaction that my Chris-Crafts have! Whether for speed on trips to the islands or for slow trolling all day for the big ones, Chris-Craft engines can't be beat!"

Model WBS
190 h.p.



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Horsepower for horsepower, you can't buy a better marine engine than a compact, power-packed Chris-Craft. *Records prove it!* For smooth, dependable power and more years of hard use at low upkeep cost, choose Chris-Craft yourself. Priced from $642, f.o.b. factory (subject to change without notice), Chris-Craft Marine Engines are available in 60, 95, 105, 120, 130, 131, 145, 158, 160 and 190 h.p., with reduction drives, opposite rotation and *Chris-O-Matic* (exclusive automatic clutch controls) for most models. See your Chris-Craft Dealer or mail coupon for catalog today!

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SEATTLE

Halibut Fleet Fishery

Albatross (1)	26,000	Maddock (1)	15,000
Angeles (1)	18,200	Nordic (1)	25,550
Bernice (1)	8,500	Presho (1)	11,200
California (1)	20,500	St. John II (1)	15,200
Ethel S. (1)	25,000	Salty (1)	9,700
Forward (1)	21,100	Signe (1)	12,300
Gloria II (2)	26,457	Sylvia (2)	40,100
Jane (1)	18,500	Trinity (1)	24,500
Lane (1)	14,300	Yukon (1)	24,000

NEW YORK

Charlotte M. (1)	40,000	Star of the Sea (1)	22,000
Golden Eagle (3)	253,000	Tina B. (3)	134,500
Marion & Alice (2)	99,300		

Scallop Landings (Lbs.)

Barbara & Gail (1)	7,100	Florence B. (1)	9,600
Beatrice & Ida (2)	16,200	Miriam A. (2)	13,200
Carol-Jack (2)	16,200	Nellie Pet (1)	7,800
Catherine C. (2)	17,100	Norseman (2)	13,500
Clipper (2)	13,800	S. No. 31 (2)	13,300
Enterprise (2)	12,100		

GLOUCESTER

Alden (5)	90,500	Madame X. (3)	3,000
Altnea Joyce (6)	115,500	Manuel P. Domingos (1)	165,000
American Eagle (5)	61,000	Margaret Marie (6)	40,500
Ann & Marie (6)	14,000	Margie L. (7)	30,500
Anna Guarino (9)	28,500	Maria Immaculata (9)	90,500
Annie (9)	48,000	Marion & Alice (1)	85,000
Annie & Josie (4)	36,000	Mary (7)	40,000
Anthony & Josephine (8)	81,000	Mary Ann (5)	76,000
		Mary Jane (1)	170,000
Bonaventure (2)	210,000	Mary Rose (2)	200,500
		Minkette 1st (3)	4,000
California (3)	80,000	Mother Ann (2)	460,000
Carlannsul (1)	7,000		
Carlo & Vince (6)	70,500	Natale III (6)	135,500
Catherine (5)	3,000	No More (1)	2,000
Catherine B. (6)	125,000	Novelty (8)	36,000
Charlotte M. (1)	137,000		
Cigar Joe (5)	115,000	Ocean Clipper (2)	28,000
Clipper (1)	67,000	Ocean Life (1)	300,000
Columbia (2)	211,000	Ocean Wave (1)	46,000
Curlew (2)	259,000	Our Lady of Fatima (2)	430,000
Dawn (8)	30,500	Philip & Grace (1)	105,000
		Pilgrim (2)	193,000
Eagle (2)	173,000	Pilhasca (5)	37,500
Eddie & Lulu M. (4)	8,500	Pioneer (4)	19,500
Edith L. Boudreau (1)	14,000	Priscilla (2)	2,500
Eleanor May (3)	10,500	Puritan (2)	195,000
Emily H. Brown (1)	149,500		
Etta K. (6)	58,000	Rodman Swift (3)	4,500
Eva M. Martin (2)	14,000	Rose & Lucy (2)	51,500
Eva II (4)	9,000	Rosemarie (6)	79,500
Evelina M. Goulart (1)	15,000	Rosie & Gracie (5)	49,500
		St. Anthony (2)	210,000
Falcon (10)	81,000	St. Cabrini (6)	107,000
Florence & Lee (1)	80,000	St. Francis (7)	83,000
Flow (1)	69,000	St. John (9)	31,500
Frances R. (4)	52,000	St. Joseph (6)	153,000
Francis L. MacPherson (2)	218,000	St. Mary (9)	91,000
Frankie & Jeanne (2)	10,000	St. Nicholas (1)	120,500
		St. Peter (4)	55,000
Gaetano S. (1)	73,000	St. Providenza (8)	53,000
Giacoma (3)	15,500	St. Rosalie (4)	112,000
		St. Stephen (7)	54,000
Helen B. (4)	61,500	St. Therese (5)	48,500
Hilda Garston (1)	175,000	St. Victoria (1)	2,000
Holy Family (2)	168,000	Salvatore & Grace (8)	178,500
Holy Name (5)	56,000	Sammy C. (4)	3,500
		Santa Lucia (5)	52,000
Ida & Joseph (6)	151,500	Sebastiana C. (2)	13,000
Irma Virginia (1)	20,000	Serafina (N.) (6)	95,500
		Serafina II (5)	51,000
Jackie B. (3)	31,000	Star of the Sea (2)	23,000
Jackson & Arthur (9)	28,500	Stella Maris (3)	68,500
Joe D'Ambrosio (2)	4,000	Sunlight (1)	80,000
Johnny Baby (3)	7,000	Sylvester F. Whalen (2)	330,000
Joseph & Lucia (1)	109,000		
Joseph S. Mattos (2)	204,000	Tipsy Parson (9)	15,500
Josie II (7)	38,000	Two Pals (1)	15,000
Judith Lee Rose (1)	242,000		
		Veronica N. (9)	25,000
Killarney (1)	93,000	Victoria (7)	8,000
Kingfisher (2)	302,000	Villanova (1)	230,000
		Vincie N. (4)	101,000
Linda B. (5)	27,000	Virginia Ann (5)	58,500
Little Flower (8)	79,000		
Little Joe (7)	48,500	White Owl (6)	24,500
Lucy Scola (6)	68,000	Wild Duck (1)	55,000

Scallop Landings (Lbs.)

Abram H. (2)	16,200	Eleanor & Elsie (1)	8,000
Brother Joe (2)	6,470	Skilligolee (1)	3,240

15,000
25,550
11,200
15,200
9,700
12,300
40,100
24,500
24,000

22,000
134,500

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3,240

Rhode Island Opens Large Area to Quahoggers

Shellfishermen in 238 skiffs gathered in Narragansett Bay off Rocky Point last month seeking to cash in on the State's quahog bonanza—23,000 bushels of shellfish transplanted late in the Summer from Providence River.

The turnout on the 800-acre area caused a change in the rules announced earlier. John L. Rego, Director of Agriculture and Conservation, said the area would be open daily from sunrise to sunset for hand tonging and raking. At first he had limited the hours from 9 a.m. to noon.

Mr. Rego estimated that the 23,000 bushels of quahogs dumped off Rocky Point with an additional 12,000 bushels transplanted off Prudence Island and in the lower Sakonnet River, would bring the State's clam diggers an income of some $250,000.

Blount Building Fish Trap Scow

Blount Marine Corp., Warren, R. I., has announced the signing of a contract with Goulart and Rupkus Co. of Fairhaven, Mass., for the construction of a 40' x 12' fish trap scow. The barge will be built of ¼" plate, have longitudinal framing, and is scheduled for delivery in March. It is to be used out of Barnstable Harbor.

A new office building designed to weather storm tides greater than any Rhode Island has yet seen is nearing completion at Blount Marine. The one-story structure is 30 ft. wide, 50 ft. long, and is of cinder-block construction. The building sits on a reinforced concrete foundation almost six feet high. This will bring the offices and a warehouse section about six inches above the highest tides ever recorded in Warren.

To Fight Shellfish Violators with Radar

The State Division of Fish & Game is making plans to equip one of its patrol boats with radar to detect and apprehend Narragansett Bay shellfish pirates more easily. The agency is asking a $9,000 capital outlay item for purchase of the equipment. The radar would have a range of about 25 miles, and would be especially valuable for detection of night shellfishermen.

The department also anticipates a $15,000 expenditure for a large, flat-bottomed boat, equipped with a suction pump, which could be used to transplant quahogs from polluted shallow areas to clean waters. A sum of $3,000 is asked to purchase testing equipment with which the department's biologist could make continuous examinations of the shellfish areas.

Georgia Biologists Believe Menhaden Mortality Due to Dredging Work

State biologists recently attributed the death of thousands of menhaden in the seaboard slip in Savannah to dredging operations by harbor tugs. However, Donald Scott, University of Georgia biologist, admitted there might be more to it than that.

The tugs keep the required depths in the slip by dragging a steel I-beam over the bottom during the period of the ebb tide. The silt thus agitated is borne seaward by the current. Mr. Scott said a school of menhaden and anchovies apparently got into the slip in the midst of dragging operations. The mud is full of organic matter which very quickly exhausts the oxygen in the water.

An additional factor mentioned by Mr. Scott was the possibility of toxic gases accumulating in the bottom parts of the slip. When stirred up by the I-beam they release hydrogen sulphite. The scientists made no tests for gases and they did not detect hydrogen sulphite.

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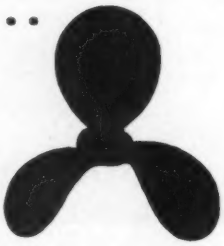

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Fishing Boat Insurance Problem

(Continued from page 14)

Department of Agriculture and many members of the fisheries industry to continue this service.

"The greatest potential shipping hazard now facing the fisheries trade is the prospect of the increasing use of throw-away containers. Their use for short distances presents no disturbing problem, provided the time in transit is normal and the Express Agency follows shippers' instructions. There does remain, however, the definite prospect of shipments requiring re-icing in transit not being provided with the proper protection.

"It seems that there is a very great need to inaugurate in transit tests by making shipments of fishery products in the various types of railroad and truck refrigerated equipment, and performance records should be kept of temperature readings under mechanical refrigeration; water ice and dry ice refrigerants, so as to discover the best conditions under which such shipments should be transported.

"In addition to the aforementioned, study at the same time could be made as to the types of equipment, thickness of insulation, cartons, other types of packages and less-than-carload containers.

"From a practical standpoint and in the final analysis, the fisheries industry is concerned only with getting its products to market safely and in merchantable condition for sale at a price the consumer can afford to pay and one that will leave a balance sufficient for the fisherman to stay in business."

Also discussed at the Technology and Exploratory Fishing Session were "The Use of Fish Oils in Poultry Feeds", by Howard Sturgis, director of the By-Products Division of the National Fisheries Institute; and "Further Experiments on the Control of 'Black Spot' on Shrimp", by E. A. Fieger and Milton E. Bailey, Louisiana State University.

Insurance and Safety at Sea

The commercial fishing vessel insurance problem and recommendations for its solution were discussed at the Economic Session by Jerome Sachs, director of the insurance staff of the Bureau of Foreign Commerce. He said: "In a general sense, the commercial fishing vessel insurance problem may be summarized as the problem of safety at sea with its special application to commercial fishing vessels. The insurance of fishing vessels has to do with the seaworthiness of hulls, the maintenance of equipment, and the operation and safety at sea of vessels and crews engaged in the business of catching fish.

"The losses suffered by insurance companies in connection with Hull as well as Protection and Indemnity (P&I) coverages on commercial fishing vessels have been persistently high in recent years. Particularly in the New England area, injury verdicts have gone up tremendously, as have acquisition costs, shipyard bills and other operational items.

"It has been a losing proposition for the insurance companies despite increases in premiums. Many insurance companies have, as a result of continuous losses, dropped out and are not selling either P&I or Hull or both coverages any longer. A few that have hung on have raised their premiums to a point where individual owners of a single vessel or of 2 or 3 vessels are complaining that the premium charges are so high as to make it prohibitive as a cost item.

"The insurance companies may show where loss prevention efforts should be increased, but such engineering advice is useless unless the vessel owner and crew really cooperate and act on the advice. The insurance companies may offer low premium rates for better safety conditions and demand higher rates for inferior conditions, or even refuse coverage if conditions are too bad. Thus, the insurance company can appeal to the pocketbook. They cannot go beyond this.

"Prevention is a matter for the individual vessel owner and crew. The existence of insurance should not reduce

safety precautions; insurance should not lead to a spirit of recklessness."

Excessive Insurance Costs

The complaints regarding fishing boat insurance as far as the United States is concerned, refer to insufficient protection and are especially noticeable in the Boston and New Bedford, Mass. areas, and the Tampa, Fla. area, according to Richard A. Kahn, chief of the Economics and Cooperative Marketing Section of the Fish and Wildlife Service. In other coastal areas of the United States there exists comparatively greater satisfaction with the present status of marine insurance in the fishing industry.

"When a situation of this kind arises, namely, that in one port some vessel owners obtain insurance at reasonable rates while other vessel owners do not, the insurance problems become competitive problems among the members of the fishing industry themselves."

"A Fisherman and His Insurance: A Case History of Hull and P&I Claims", was the topic of John Robas of Fernandina, Fla., and several representatives of foreign countries also discussed insurance.

Trends in Abundance of Red Snapper

Speaking at the Biological Session, C. Isaac Camber of the University of Miami Marine Laboratory described a survey which was initiated by the laboratory for the State Board of Conservation to determine trends in the abundance of the main species of red snapper on the Campeche Banks. The work was undertaken as the result of complaints by the industry about declining fishing in the Gulf.

Camber pointed out that no complete data are available to determine conclusively whether the decline in the availability between 1944 and 1951 represents a general decrease in the abundance of stocks of American red snapper on the Campeche Banks. He said there are indications that such a situation exists, but additional research will have to be conducted to establish this fact.

Camber continued: "Now that the basic work has been completed, it appears that with a relatively small effort on the part of the red snapper industry it would be possible to continue to plot the various trends in availability. If the entire red snapper industry, in both the United States and Cuba, collaborate by compiling statistical data, the trends and fluctuations in availability can be refined to show the current apparent abundance of the fish stocks. Once aware of the current trends in the abundance of fish the industry will be able to adopt protective measures, such as may be necessary."

The Biological and Caribbean Sessions also featured the following addresses by speakers from the United States: "Blue Crab Research in Virginia", by Willard Van Engel of the Virginia Fisheries Laboratory; "A Comparison of Nova Scotia and Bahamas Bluefin Tuna, with Reference to Migration and Population Identity", by Luis Rene Rivas, University of Miami Marine Laboratory; "Growth Rates of Sub-populations of Mullet on the West Coast of Florida", by Gordon C. Broadhead of the University of Miami Marine Laboratory; "Behavior of Shrimp in an Electrical Field", by James B. Higman of the University of Miami Marine Laboratory; "Experiments with Shark Repellents", by Stewart Springer, Fish & Wildlife Service; and "International Cooperation and Understanding for the Conservation and Proper Use of the World's Marine Resources", by Mary Schulman, Assistant Attorney General of Florida.

The major fishing potentials of the Caribbean remain unexploited due to the lack of vessels and fishing gear for deep-sea fishing, R. T. Whiteleather of the Fish & Wildlife Service told the closing plenary session of the Gulf and Caribbean Fisheries Institute.

John F. Linehan, general manager of the Seafood Producers Association, Inc., New Bedford, Mass., was named temporary chairman of the American Council of Fishing Vessel Owners, a new group formed at the Gulf and Caribbean Fisheries Institute meeting. Mr. Linehan will organize the unit in Washington, D. C. early next year. Its purpose is "to provide a basic vehicle for unified action in the resolvement of the problems of all fishing vessel owners in the United States."

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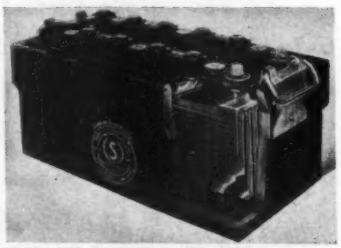

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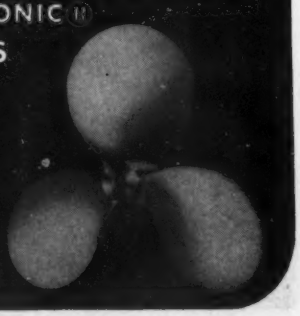

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Canadian Report

By C. A. Dixon

Eastern New Brunswick lobstermen caught 3,800,000 lbs. of lobsters during the 1954 season and the fishermen were paid $1,262,551 for their landings. The total catch was less than that of the 1953 season by 300,000 lbs., but the fishermen this year earned $20,000 more because of higher prices.

Lobster fishermen in Saint John and Charlotte Counties in southern New Brunswick were blessed with good weather for the hauling of their traps following the first set, and had good fishing the first week or two. Traps were set on November 13 as permitted by law but were not pulled until the 15th.

Not all the traps were set on the first day of the legal opening season, but more than 25,000 were dumped into the sea at Grand Manan from about 300 boats.

New Type Long-Lining Equipment

The schooner *Jean Frances* returned to Riverport, N. S. on November 20 at the end of a moderately successful 37-day voyage to the Grand Banks, where she tested new type long-lining equipment. Rough weather limited fishing to six days but the *Frances'* hold bulged with 22,400 lbs. of cod.

"Gurdys" or small capstans are used to haul the lines aboard two-man power boats. The gurdys permit the crews of the power boats to fish deeper. Most schooners carry 12 double-oared dories each manned by two men who haul the lines by hand. The Nova Scotia Fisheries Research Board sponsored the experiment, which is designed to mechanize long-lining.

Capt. Amos Crouse of the research board said the trip will be repeated next year. He said this voyage indicated that a new method of launching the power dories would have to be devised.

Seiners Getting Good Catches

Weir fishing for sardines in southern New Brunswick is practically over and fishermen in most localities have taken the twine tops off their weirs. A few are still equipped in sheltered places but only minor catches of sardines are reported, as November ends. Campobello seiners, however, are still operating their seines in the Cape Sable Island area of southwest Nova Scotia where very large catches of sardines and herring have been made this Fall.

Lobster Trap Insurance Rates Changed

The Canadian Federal Department of Fisheries has inaugurated a new schedule of insurance for lobster traps with the premium rates increased and the rate of indemnity lowered. The new regulations will apply to the lobster districts in the Bay of Fundy and southwestern Nova Scotia for the long lobster fishing seasons and probably elsewhere for the short seasons. Revisions were made after experience gained during the first year of the fund's operations which showed that the government had paid out $46,110 in claims from the Maritimes alone and had received only $11,722 in premiums.

Indemnity rate will be paid for losses over a 25% deduction in the number of traps destroyed, the number which it is estimated are annually lost by normal wear and tear.

Big Export Year

Gordon O'Brien of Ottawa, president of the Fisheries Council of Canada, recently stated that 1954 probably would be one of the biggest fish export years in history. By the end of September Canada's fish export trade was valued at $95,000,000, about $9,000,000 more than at the same time in 1953.

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Connecticut's Proposed Trash Fish Plant Meets Opposition

The trash fish plant which has been proposed for Stonington is meeting with considerable opposition. Fighting the proposal is the newly-formed Stonington Welfare League which contends that location of such a plant would have an adverse effect on property valuations.

Cost of the plant is set at three-quarters of a million dollars; its location would be on Longo's south dock, and its operator would be Joseph Ryon, who now runs the Fishermen's Co-op trash fish plant at Galilee. Several of the local draggermen are eager to see a similar plant erected in Stonington.

In favor of the plant also is the Stonington Fishermen's Association, whose committee of dragger captains—Dennis Cidale, Bill Roderick, Jim Henry, Charles Monsam and Israel Jacobs—has spearheaded the drive.

Search for "Nancy S." Ended

A Coast Guard sea and air search for the 38 ft. fishing vessel *Nancy S.*, which vanished between Montauk, N. Y. and Point Judith, R. I. on November 24, has been abandoned. Capt. Erling Kristenson of Noank, Conn., skipper of the dragger, was alone on the boat and is presumed lost.

The *Nancy S.*, loaded with 16,000 lbs. of fish, is believed to have been swamped in a squall that hit the area on the 24th. Capt. Kristenson had let a crew member off at Montauk, and had proceeded alone on his trip to Point Judith to unload the fish.

Cape Cod Fishermen Landing Good Scallop Catches at Orleans

Up to November 6 commercial scallop fishermen this season had landed 9,943 bags of scallops at Rock Harbor, Orleans, for a total value of $49,710. A new record was set on November 6 for scallops landed at Rock Harbor, when 29 boats brought in 576 bags which sold for $5 a bag in the shell.

"John David" is Repowered

The dragger *John David* of Provincetown has been repowered with a new Model WM-1197 Wolverine-Waukesha Diesel, rated 220 hp. at 1600 rpm.

Capt. Joseph Souza

Capt. Joseph Souza, 60, a lifelong resident of Provincetown, died on November 20. Capt. Souza was a trap fisherman and skipper of the trap boat *Laura II* until he retired.

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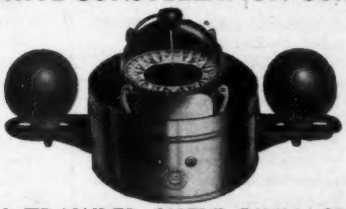
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Portable Light Co., Inc., 216 William St., New York 7, N. Y.

SHIPBUILDERS
Blount Marine Corp., Warren, Rhode Island.
Conrad Industries, Morgan City, La.
Diesel Engine Sales Co., St. Augustine, Fla.
Harvey F. Gamage, So. Bristol, Maine.
*Morehead City Shipbuilding Corp., Morehead City, N. C.
Morse Boatbuilding Co., Thomaston, Me.
*Frank L. Sample & Son, Inc., Boothbay Harbor, Me.

SILENCERS
The Maxim Silencer Co., 126 Homestead Ave., Hartford 1, Conn.

STEERING GEAR
The Edson Corp., 141 Front St., New Bedford, Mass.
*Metal Marine Pilot, 342 Golden Gate Ave., Tacoma, Wash.
Sperry Gyroscope Co., Division of the Sperry Corp., Great Neck, N. Y.

STERN BEARINGS
*"Goodrich Cutless": Lucian Q. Moffitt, Inc., Akron 8, Ohio.
Hathaway Machinery Co., Inc., New Bedford, Mass.
*Byron Jackson Co., PB Division, P.O. Box 2493, Terminal Annex, Los Angeles 54, Calif.

VALVES
Fabri-Valve Co. of America, 2100 No. Albina Ave., Portland 12, Ore.

VOLTAGE REGULATORS
The Safety Car Heating & Lighting Co., Inc., Marine Div., P.O. Box 904, New Haven 4, Conn.

WINCHES
Bodine & Dill (formerly Hettinger Engine Co.), Bridgeton, N. J.
Hathaway Machinery Co., Inc., New Bedford, Mass.
Ideal Windlass Co., East Greenwich, R. I.
New England Trawler Equipment Co., 300 Eastern Ave., Chelsea 50, Mass.
Stroudsburg Engine Works, 62 North 3rd St., Stroudsburg, Penn.

WIRE ROPE
American Steel & Wire Division, United States Steel, Rockefeller Bldg., 614 Superior Ave., Cleveland 13, Ohio.
John A. Roebling's Sons Co., Trenton 2, N. J.
*Wickwire Spencer Steel Division of The Colorado Fuel & Iron Corp., Palmer, Mass.

Maryland Oystermen Having Good Season

The oyster business was booming in Crisfield during the greater part of November. Production was at full capacity during the first three weeks of the month in virtually every seafood plant that handles oysters, in anticipation of Thanksgiving orders.

Oyster bins in the seafood packing houses were much fuller than usual, for there has been a good supply of oysters—fat and high quality—brought in by both tongers and dredgers.

Shell-stock was bringing anywhere from $2 to $3.25 per bushel. Towards the end of the month the market was a little off, $2.75 being the high price and $2 the lowest.

Packers report that it appears likely that production this season will exceed last year's by a long margin in the shell-stock. Then, because oysters are fat, the yield is better and adds to the number of gallons that will be marketed.

Tongers and dredgers report they have found what almost amounts to an abundance of shell-stock oysters on the tonging grounds and on the dredging areas. They say the oysters are the best marketed in Maryland in years.

All but about two or three of the October 15 hurricane-damaged dredges were in operation last month, and in Tangier Sound an increase of six or so over the usual number have been active this season. Damage to oysters in the hurricane was very negligible and tongers, who started earlier than the dredgers, have been having a wonderful season.

Hard Crabs Plentiful

Hard crabs were reported to be more plentiful in November than at any time during the present season in lower Chesapeake Bay. Crab potters, operating out of Tangier Island were catching anywhere from five to eight barrels a day. A majority of the crab potters lost their pots during the October hurricane.

Crisfield crab potters had their big catches the middle of November. During the last week in November they began to take up their pots as the Maryland season which began on April 1 comes to a close on November 30.

Big Demand for Blowfish

Blowfish have been in big demand recently, and are bringing 35¢ a pound. Large catches were made in crab pots, baited with crabs. Potters reported as much as two or three hundred pounds in their pots, two or three times a week when they were fished. The blowfish are skinned and shipped direct to the big city markets.

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Oyster dredge boat "Klondike", 55' x 17.5' Dpt. 5.8'; capacity 1000 bushels. Excellent condition. Beacon Oyster Co., Wickford, Rhode Island.

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120 Murphy Diesel ME4, never been used, with Twin Disc hydraulic coupling. Also 400 Atlas. S. G. Co., 75 Central St., Boston 9, Mass. Tel. Liberty 2-4366.

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FRED LANSBURGH

Advises the entire seafood industry (fish, shrimp, etc.) throughout the United States, Canada, Mexico and Europe that the McDonnell Fish Co., Inc., 7 Fulton Fish Market, New York City, is the only company in this industry that he is associated with at the present time.

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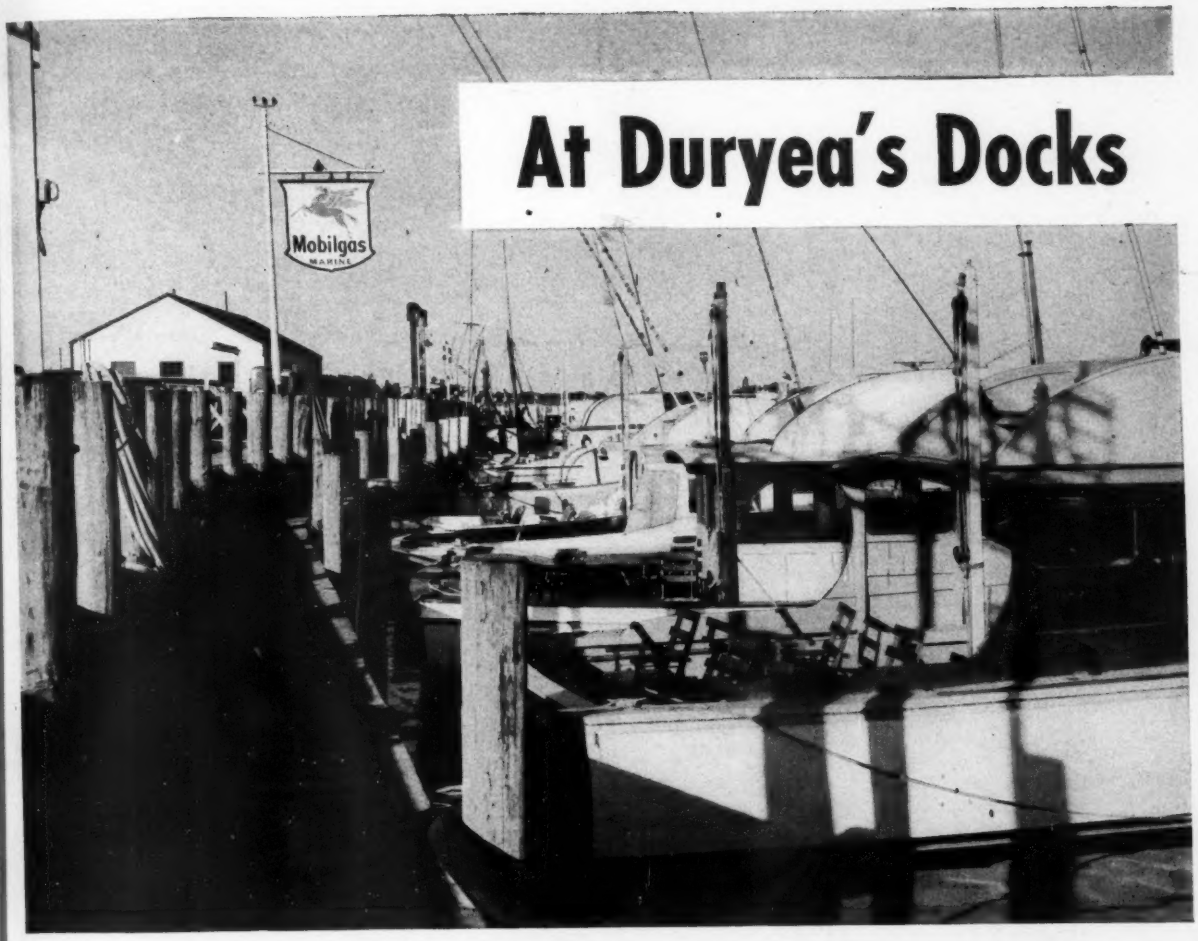

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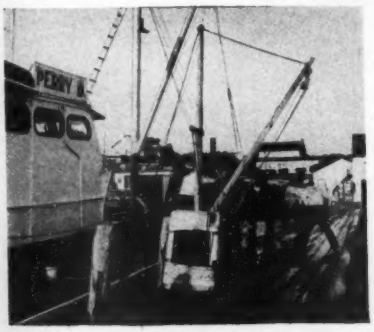

Here, live lobsters from Maine are unloaded from one of the two modern lobster transports operated by Duryea.

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GOOD SERVICE, good products and hard work—that's the secret of success of Perry B. Duryea & Son, Inc. This father-and-son team operates two docks—one at Lake Montauk and the other at nearby Fort Pond. For thirty years they've supplied a good share of Montauk's fishermen with Mobil Marine products. And they use these famous products in their own boats... two big Diesel-driven lobster transports which carry live lobsters from Maine to Montauk.

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